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Pierre Teilhard de Chardin: Critical Reflections

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PIERRE TEILHARD DE CHARDIN: KRITICKÁ ZAMYŠLENÍ

ABSTRAKT Geopaleontolog a jezuitský kněz Pierre Teilhard de Chardin se směle pokusil sloučit osobního Boha a kosmickou evoluci do unikátního filozofického světónázoru, jenž uznává hodnotu vědy i teologie. Vycházející ze svých vlastních zamyšlení a zkušeností, nabídl obsáhlou a sjednocenou interpretaci skutečnosti založenou na čtyřech základních myšlenkách: pronikající duch, zákon komplexity-vědomí, kritické hranice, a budoucí Bod Omega. Výsledkem je dynamický panenteismus, který v rámci planetární historie příkládá lidské existenci zvláštní význam a zároveň obhajuje mystickou jednotu našeho druhu s Bohem-Omega na konci lidské evoluce na Zemi.

KLÍČOVÁ SLOVA konvergence; evoluce; Bůh-Omega; humanismus; mysticismus; Bod Omega; věda; teleologie; teologie; ultra-antropologie

ABSTRACT The geopaleontologist and Jesuit priest Pierre Teilhard de Chardin made a bold attempt to synthesize a personal God and cosmic evolution into a unique philosophical worldview that acknowledged the value of both science and theology. Drawing from his own reflections and experiences, he offered a comprehensive and integrated interpretation of reality grounded in four major ideas: pervasive spirit, the law of complexity-consciousness, critical thresholds, and a future Omega Point. The outcome is a dynamic panentheism that gives both a special place to human existence within planetary history and argues for a mystical unity of our species with God-Omega at the end of human evolution on the earth.

KEY WORDS convergence; evolution; God-Omega; humanism; mysticism; Omega Point; science; teleology; theology; ultra-anthropology

INTRODUCTION

An anthropologist as evolutionist may ask this quintessential three-part question about *Homo sapiens sapiens*: Where did our own species come from, what is its unique nature, and where is it going?

Ever since the groundbreaking writings of naturalist Charles Darwin (1809–1881), serious scientists and philosophers and theologians have grappled with the far-reaching consequences of accepting the factual theory of organic evolution. Darwin's conceptual revolution in terms of biology and history not only challenged the embedded Aristotelian philosophy and Thomistic theology, but also offered an alarming new scientific view of both life on earth and the place of humankind within this universe. Nothing escapes the pervasive influence of this evolutionary worldview. Although interpretations of

evolution do differ from thinker to thinker, the brute fact of organic evolution in general and human evolution in particular can no longer be ignored by any enlightened individual; the ramifications of evolution have resulted in new ideas in science and new beliefs in theology. Evolution has resulted in an all-encompassing process philosophy that now envelopes the modern intellectual framework, ranging from cosmology to anthropology.

But, are science and theology reconcilable in terms of evolution? As an eminent scientist and cosmic mystic, Pierre Teilhard de Chardin (1881–1955) presented a dynamic worldview in which he argued that our species does occupy a special place within a spiritual universe and that it is evolving toward an Omega Point as the end-goal of humankind on this planet. With his commitment to the fact of evolution, Teilhard as both geopaleontologist and Jesuit priest became a

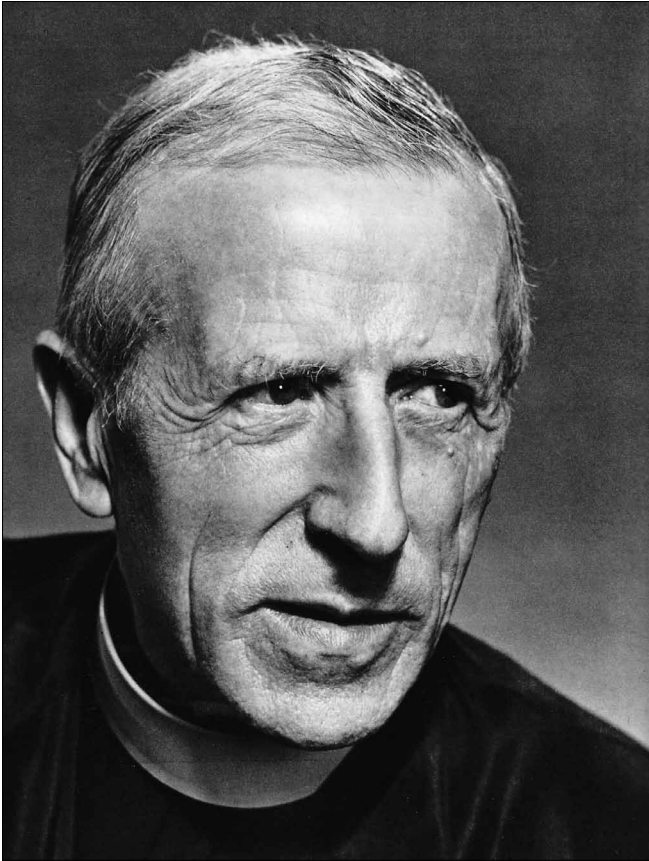


Fig. 1. Pierre Teilhard de Chardin (portrait).

very controversial figure within the Roman Catholic Church during the first half of the 20th century. Actually, because of his bold interpretation of our species within not only earth history, but also a dynamic universe, he was silenced by his Jesuit superiors for taking an evolutionary stance at a time when this theory was a threat to the entrenched orthodox theology. A modern-day religious humanist, Teilhard maintained that his theistic evolution still discloses the special place our species occupies within life, nature, and this cosmos.

As a geopaleontologist, Teilhard was familiar with the rock and fossil evidence that substantiated the fact of evolution. As a Jesuit priest, he was acutely aware of the need for a meta-Christianity that would contribute to the survival and fulfillment of humankind on this planet in terms of both science and faith. Sensitive to the existential predicament of our species with its awareness of endless space and certain death, Teilhard as visionary and futurist ultimately grounded his personal interpretation of evolution in a process philosophy, natural theology, and cosmic mysticism that supported panentheism (the belief that God and the World are in a creative relationship of progressive evolution). Galileo was put under house arrest, and endured humiliation, as a result of his claim that the earth does in fact move through the universe; a discovery that the aged astronomer was coerced into recanting by the dogmatic Pope Urban VIII (formally Cardinal Maffeo Barberini). Disappointed in the conservative and narrow standpoint taken

by his Jesuit superiors, Teilhard suffered alienation and discouragement because he rightly claimed that species (including our own) evolve throughout geological time.

On 1 May 1881, Teilhard was born at the Chateau Sarcenat in Orcines, France, near the beautiful volcanic hills of Auvergne. His father was an avid naturalist and his mother was a devout religionist. Throughout his life, Teilhard would remain devoted to both science and theology; he had a deep and lasting desire to present an ultra-anthropology (as he put it) that included both the facts of evolution and the beliefs of Christianity.

As a child, Teilhard showed an interest in both natural science and religious mysticism. Sensitive to his surroundings, he was particularly drawn to the study of rocks and fossils, as well as to collecting insects and minerals. Within this changing world, he began searching for something indestructible and eternal; he found delight in a plowshare (his “genie of iron”) which he supposed was an enduring object free from change and imperfection. However, after a storm, the youth discovered that his piece of iron had rusted. Teilhard tells us that he then threw himself on the ground and cried with the bitterest tears of his life. As a result of this devastating experience, he would have to seek his “one essential thing” beyond this imperfect world of matter and corruption. In 1899, to be “most perfect” (as he put it), Teilhard at the age of 17 entered the Jesuit society as a novitiate in order to serve God. Nevertheless, he intensified his interest in geology on the channel island of Jersey. Throughout his entire life, the scientist-priest would never abandon his love for science, philosophical outlook, and devotion to theology (especially eschatology).

EVOLUTION & MYSTICISM

In 1905, as part of his religious training, Teilhard found himself teaching at the Jesuit College of the Holy Family in Cairo, Egypt. This unique three-year experience offered him the opportunity to do research in both geology and paleontology, expanding his knowledge of earth history. It also exposed him to a rich multiplicity of cultures, both in the past and the present, which surely jarred him from European ethnocentrism. Following this teaching obligation, he finished his theology studies at Hastings in England. It was during his stay in England that Teilhard read Henri Bergson’s major book, *Creative Evolution* (1907). This metaphysical work had an enormous influence on Teilhard, since it resulted in his lifelong commitment to the fact of evolution. It is worth emphasizing that it was not Charles Darwin’s *On the Origin of Species* (1859) but rather Bergson’s interpretation of evolution that convinced the scientist-priest that species are mutable throughout organic history; Teilhard was sympathetic to Bergson’s philosophical vitalism, rather than to Darwin’s scientific materialism. Also of significance is the fact that, in the nineteenth century, after the views of Lamarck, no spokesperson like Thomas Huxley in England and Ernst Haeckel in Germany had been as committed as they were to defending the evolution framework in France.



Fig. 2. Mongolia.

On 24 August 1911, at the age of 30, Teilhard was ordained a priest; he would spend the rest of his life in the Jesuit Society as a geopaleontologist dedicated to both science and theology in terms of evolution.

While on one of his field trips, Teilhard by chance became involved in the discovery of the controversial Piltdown skull (later determined to be a fraud). Although questioning the validity of this fossil evidence from the very beginning, one positive result was that the young geologist and seminarian now became particularly interested in paleoanthropology as the science of fossil hominids. After his stay in England, Teilhard returned to France where, during World War I, he was a stretcher-bearer in the battle trenches at the front lines. It is remarkable that he emerged from his horrific experiences in the war even more optimistic that evolution was preparing the earth for a new direction and final goal in terms of the spiritualization of the human layer of this planet. In fact, during the global war, Teilhard had three mystical experiences which he recorded for posterity (Teilhard 1965, 41–55). It was his emerging mystical vision that would allow him to reconcile science and theology within an evolutionary interpretation of spiritual reality (as he saw it).

At the Natural History Museum in Paris, Teilhard studied under the geopaleontologist Marcellin Boule and completed his doctorate degree in paleontology with a thesis on the lower Eocene mammals and their stratigraphy in France. At

this time, he befriended the prehistorian expert Abbe Henri Breuil, a research specialist on cave art, e.g., the exquisite wall murals of Lascaux in France and Altamira in Spain. These Cro-Magnon paintings of large animals remain one of the most significant discoveries of the creative activity of early *Homo sapiens*. Yet, how dearly would one love to discover also the portrait of an adult Cro-Magnon person!

In 1923, as a result of an invitation, Teilhard next found himself as a geologist participating in an expedition into western Mongolia. A year in China had given the young scientist a splendid opportunity to begin his career as a specialist in Chinese geology; this research was later supplemented with an intense interest in human paleontology. He was becoming more and more aware of deep space and deep time. It was during this period that, while in the Ordos desert of Mongolia, Teilhard delivered “The Mass on the World” (1915, 1923), a superb mystical account of his offering up the whole world as a Eucharist to a Supreme Being as the creator, sustainer, and ultimate destiny of an evolving universe. He expresses his emerging cosmic vision of Christ when he writes: “I, your priest, will make the whole earth my altar and on it will offer you all the labors and sufferings of the world... You know how your creatures can come into being only, like shoot from stem, as part of an endlessly renewed process of evolution” (Teilhard 1965, pp. 19, 22).

In 1924, the anatomist Raymond A. Dart had correctly inter-

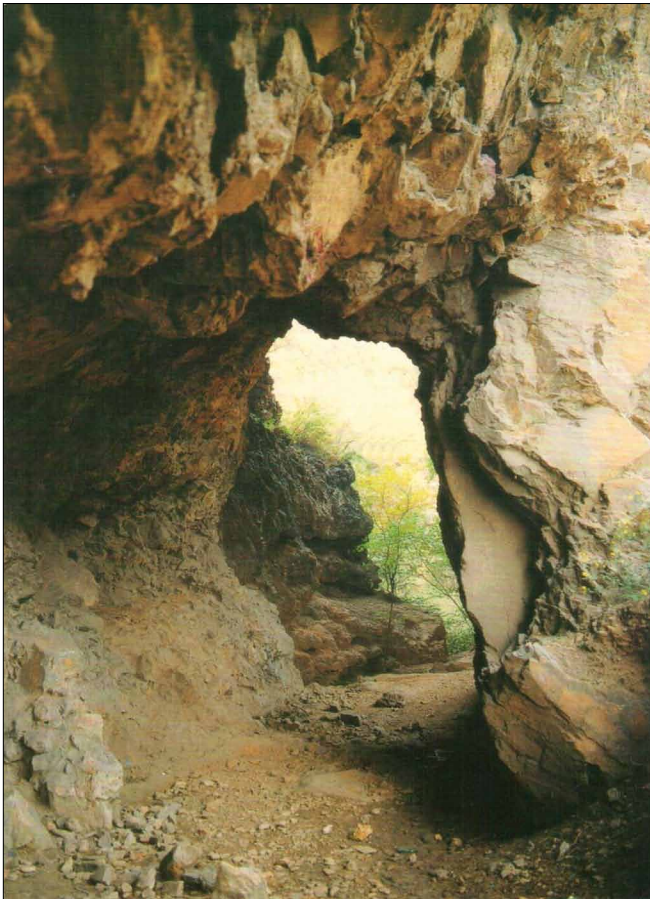


Fig. 3. Cave Entrance (Dragon Bone Hill).

preted the fossil primate juvenile skull from the Taung site in the Transvaal area of South Africa as belonging to a true hominid form. He classified it as *Australopithecus africanus* (one of several bipedal hominids living between 4–1 million years ago in Africa). Ironically, in 1925, the so-called John Scopes “monkey trial” took place in Dayton, Tennessee. No doubt, biblical fundamentalists were threatened by the growing evidence for both organic evolution and the emergence of the human animal from a fossil apelike form in the remote past. It is to Teilhard’s credit that he never took seriously a strict and literal interpretation of Genesis as presented in the Old Testament of the Holy Bible. Instead, he was devoting his life to synthesizing science and theology in terms of the indisputable fact of pervasive evolution. Furthermore, his concern for the survival and fulfillment of our species on earth was expressed in his adherence to a unique synthesis of God and evolution that embraced a global religious humanism.

The more paleoanthropologists search, the more fossil hominid specimens they find in the rock strata of both central and south Africa. During the last decades, scientists have unearthed several different hominid species and, no doubt, more fossil hominid specimens are very likely to be discovered. Even so, this general evolutionary sequence has emerged: from *Homo habilis*, through *Homo erectus*, to *Homo sapiens*. This empirical evidence clearly shows a steady increase in cra-



Fig. 4. Sinanthropus (skull).

nia capacity and eventually the divergence of some hominid populations out of Africa and throughout first the eastern hemisphere and then later the western hemisphere as well. Today, the species *Homo sapiens* has literally spread itself over the surface of this planet.

Returning to France, Teilhard ran into serious problems, in the eyes of the Roman Catholic Church, because of his unorthodox beliefs. In Paris, he began giving public lectures on and teaching about the fact of biological evolution. Teilhard was even bold enough to offer a personal interpretation of Original Sin and the problem of evil in terms of cosmic evolution and the emergence of our own species in a dynamic but imperfect (unfinished) universe; he saw the cosmos as a cosmogenesis moving from chaos and evil to order and perfection. When a copy of his controversial essay fell into the hands of some Jesuits, Teilhard was immediately silenced by his superiors. They, of course, had a failure of nerve in not facing head-on the fact of evolution and its ramifications for understanding and appreciating the place of humankind within nature. Because his controversial vision challenged Christian orthodoxy, Teilhard was censored by the Roman Catholic Church: he was forbidden to teach or publish his own theological and philosophical views. Yet, he would be allowed to publish the results of this extensive scientific research in historical geology.

And because of his commitment to evolution, Teilhard was even ‘exiled’ from France by the Jesuit order, finding himself sent back to China. He joined the Jesuit priest Emile Licent at his museum in Tientsin. During this time, the ostracized scientist-priest wrote his first book, *The Divine Milieu* (1926–1927), a spiritual essay on the activities and passivities of the human being. In it, he argues that a personal God is the divine Center of evolving Creation (in sharp contrast to viewing the entire universe as a completed event that happened only about six thousand years ago): “We may, perhaps, imagine that the creation was finished long ago. But that would be quite wrong. It continues still more magnificently, and at the highest levels of the world” (Teilhard 2001, 25).



Fig. 5. Sinanthropus (sculpture).

Although avoiding the tempting position of pantheism, Teilhard did write: “God reveals himself everywhere, beneath our groping efforts, as a *universal milieu*, only because he is the *ultimate point* upon which all realities converge... God is infinitely near, and dispersed everywhere” (Teilhard 2001, 85). In his later thought, he developed the idea of God-Omega as the goal of human evolution.

Fortuitously, Teilhard now found himself a member of the Cenozoic Research Laboratory at the Peking Union Medical College. He was the chief geological specialist on the excavation research team at Dragon Bone Hill (Longgushan) in the Western Hills near the village of Zhoukoudian. Starting in 1928, geologists and paleontologists excavated the sedimentary layers in the caves of Dragon Bone Hill. These deposits yielded hominid teeth, skull caps and mandibles, as well as stone artifacts and evidence suggesting the use of fire. At this site, the scientists discovered the so-called Peking man (*Sinanthropus pekinensis*), a fossil hominid dating back at least 600,000 years but now relegated to the long *Homo erectus* phase of human evolution. While excavating the rock strata of these caves for the Cenozoic Research Laboratory, Teilhard first worked under the direction of Davidson Black and then Franz Weidenrich; this unique geological location still remains one of the most significant fossil hominid sites in the world. Teilhard became world-known as a result of his popu-

larization of the *Sinanthropus* discovery. As a skilled stratigrapher, he himself made major contributions to the geological study of this site. Furthermore, Teilhard’s long stay in China offered him the luxury of time to think and to write, as well as to continue his scientific research.

Like the biogeologist Darwin, the geopaleontologist Teilhard was able to conceive of life forms evolving over seemingly endless periods of time, as well as to reflect on the emergence of the human animal from those remote fossil apes that once inhabited Africa. Both explored the earth with his ever-present geologist’s hammer and scientific field notebook. As such, it is intriguing to imagine Darwin investigating the caves of Dragon Bone Hill, and Teilhard exploring the islands of the Galapagos Archipelago. And also like Darwin, Teilhard’s early interests shifted more and more from geology, through paleontology, to anthropology.

AN EVOLUTIONARY SYNTHESIS

Unlike the outmoded views of Archbishop James Ussher, William Paley, and Philip Gosse, the mature Teilhard had always rejected a strict and literal interpretation of Genesis in favor of an evolutionary perspective. However, there is an arc of interpretations of evolution in the serious literature: from materialism, through vitalism and spiritualism, to mysticism. Bringing his own scientific knowledge and religious commitments together, the Jesuit geopaleontologist now began writing a synthesis of facts and beliefs, with the aim of demonstrating the special place held by our species in this dynamic universe. He was determined to show that our species is, in fact, unique in the world. After two years, writing several paragraphs each month, Teilhard completed his major work, *The Phenomenon of Man* (1938–1940, with a postscript and appendix added later in 1948). It focuses on the unique appearance of our single species within organic evolution on this planet. For other religionists, his evolutionary synthesis was a threat to traditional theology and, consequently, it was denied publication in 1944. In retrospect, however, it is with bitter irony that this book was so controversial because it had offered an earth-bound and human-centered interpretation of evolution. It is essentially an ultra-anthropology grounded in a phenomenology of evolution in terms of emerging consciousness, as well as a spiritual worldview advocating cosmic pantheism and planetary humanism.

In *The Phenomenon of Man*, an enthusiastic Teilhard writes: “Is evolution a theory, a system or a hypothesis? It is much more: it is a general condition to which all theories, all hypotheses, all systems must bow and which they must satisfy henceforth if they are to be thinkable and true. Evolution is a light illuminating all facts, a curve that all lines must follow... The consciousness of each of us is evolution looking at itself and reflecting upon itself... Man is not the center of the universe as once we thought in our simplicity, but something much more wonderful – the arrow pointing the way to the final unification of the world in terms of life. Man alone con-

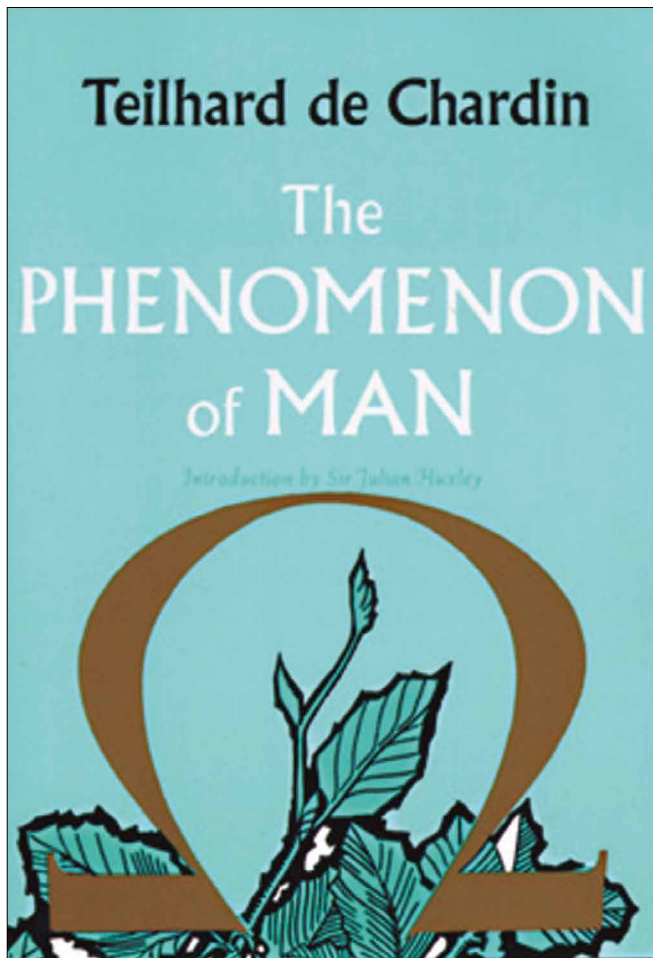


Fig. 6. *The Phenomenon of Man* (book cover).

stitutes the last-born, the freshest, the most complicated, the most subtle of all the successive layers of life... The universe has always been in motion and at this moment continues to be in motion. But will it still be in motion *tomorrow*?... What makes the world in which we live specifically modern is our discovery in it and around it of evolution... Thus in all probability, between our modern earth and the ultimate earth, there stretches an immense period, characterized not by a slowing-down but a speeding up and by the definitive florescence of the forces of evolution along the line of the human shoot” (Teilhard 2008, 219, 221, 224, 229, 277). No doubt, the evolutionary stance of this work was sufficient enough to warrant its being condemned by the dogmatic religionists of that time. Nevertheless, the fact of evolution was an overwhelming paradigm shift that had required a profound reinterpretation of time, change, and life itself (including new conceptions of reality, experience, and human values). Of course, religions and theologies have also evolved throughout human history. Many readers did find Teilhard’s spiritual vision full of hope and inspiration; it presented a conceptual framework of love and action for building a new earth that would value both the individual person (as had been emphasized by Friedrich Nietzsche) and a collective humankind (as had been emphasized

by Karl Marx). Unlike many researchers in the special sciences, Teilhard was deeply concerned with the ongoing survival and fulfillment of our species in terms of the shape of things to come on this planet.

Teilhard had chosen those concepts that would allow him to interpret evolution in such a way as to save his fundamental religious and theological beliefs in God, free will, immortality, and a divine destiny in the conventional Judeo-Christian-Islamic tradition. Consequently, some readers were pleased by and excited over Teilhard’s engaging and illuminating interpretation of creative vitalism and mystical evolution. Clearly, his spiritualism offered a worldview that is far removed from the scientific naturalism as mechanistic materialism of Charles Darwin, Richard Dawkins, Daniel C. Dennett, and Stephen Wolfram, including the philosophical naturalism of critical thinkers from John Dewey to Marvin Farber (among other evolutionists in science and philosophy).

Teilhard’s impressive contributions to Chinese geology, paleontology, and archaeology may be seen in the 11 volumes of his scientific writings (Schmitz-Mormann 1971). They include his own extensive work related to the *Sinanthropus pekinensis* discoveries from the Dragon Bone Hill caves at Zhoukoudian near Peking, China. Together, his scientific and philosophical writings, along with his many letters and essays, fill at least 27 books.

Briefly, for Teilhard, the Mosaic cosmogony is replaced by emergent evolution within which the biblical Adam and Eve become replaced by fossil apelike forms in the remote past! Furthermore, one is reminded of Ludwig Feuerbach’s call for a philosophical anthropology that takes seriously the ongoing findings of the special sciences within a humanistic framework.

ENVISIONING THE OMEGA POINT

Teilhard argues that the universe is a cosmogenesis. Essentially for him, the unity of this cosmos is grounded not in matter or energy, but rather in spirit (the within-of-things or radial energy or love energy); thereby, he gave priority to dynamic spirit rather than to atomic matter (the without-of-things or tangential energy). In short, for the Jesuit scientist, ultimate reality is grounded in quantum mysticism. Reminiscent of Lamarck and Bergson, Teilhard was a vitalist who saw the spiritualizing and personalizing universe as a product of an inner driving force manifesting itself from material atoms, through life forms, to reflective persons. He saw meaning and purpose in this sweeping epic of cosmic evolution, particularly in the emergence of humankind. However, Teilhard’s alleged cosmology is actually a planetology, since the scientist-priest focused his attention on the earth without any serious consideration of the billions of galaxies, each with billions of stars, strewn throughout sidereal reality.

Of primary significance, Teilhard argued that the assumed order in nature reveals a pre-established plan as a result of a divine designer, who is the transcendent God of Christianity as the Center of creation or Person of persons; actuality, autonomy,

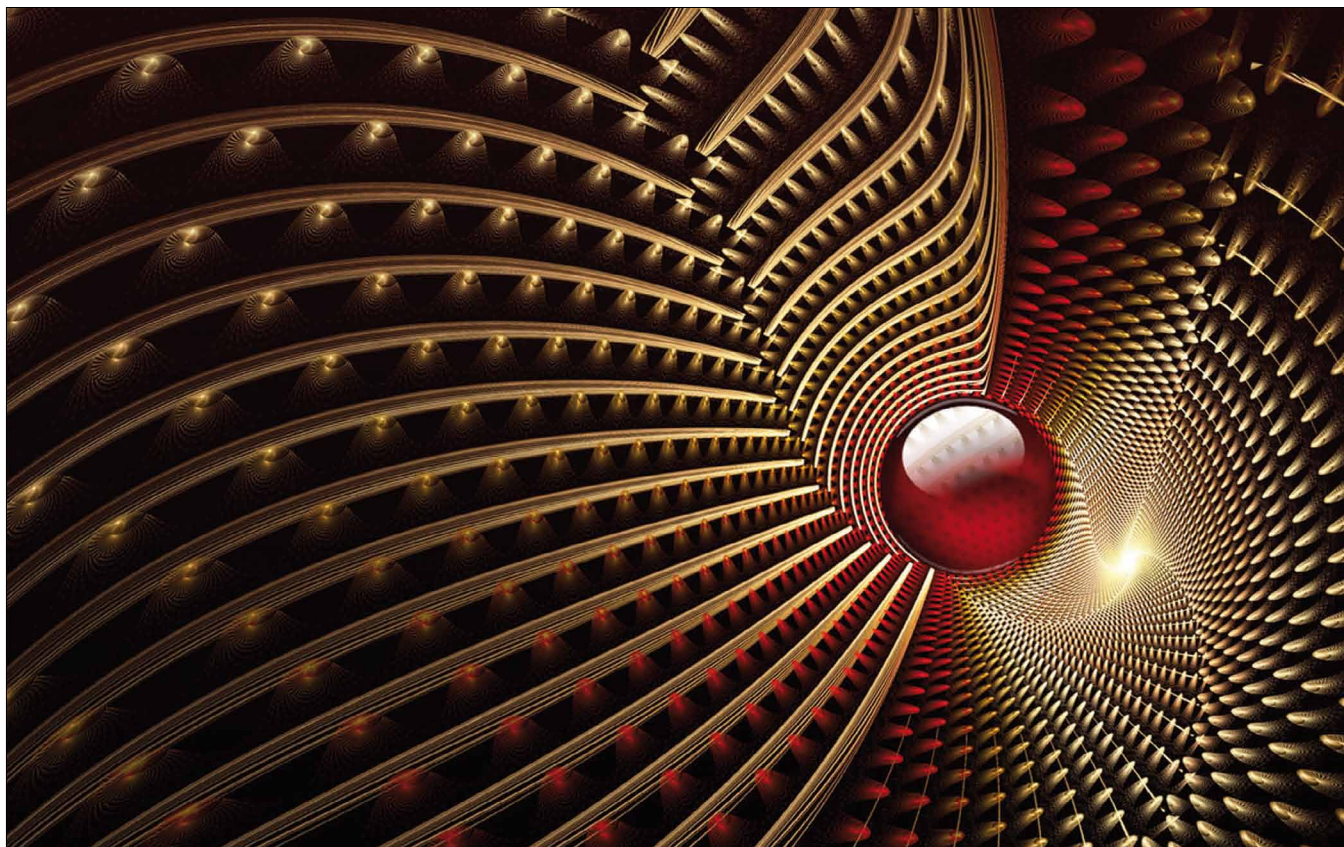


Fig. 7. Convergence (illustration).

irreversibility, and transcendence are the essential aspects of God-Omega. The evolving direction in nature is a result of the process law of complexity-consciousness; the Aristotelian idea that nature manifests a static hierarchy had been transformed into an evolutionary interpretation of this universe by Herbert Spencer (among other serious thinkers). For Teilhard, in terms of size-complexity, the results of evolution range from immense stars to the human brain. But, he was deeply concerned not with the infinitely great or the infinitely small, but rather with the infinitely complex that would emerge in the distant future as a spiritual synthesis. As such, his evolutionary worldview is grounded in teleology and convergence.

For Teilhard, this cosmic law manifests itself from the inorganic atoms through organic species to the human animal itself. Or, this teleological process has resulted in the appearance of Matter, then Life, and finally Thought. Evolution is the result of “directed chance” taking place on the finite sphericity of planet earth. For Teilhard, God-guided evolution is converging and involuting around this globe: first through geogenesis, then biogenesis, and now through noogenesis. As human evolution continues to spiral forward and upward (as he saw it), a layer of collective minds as spirits will continue to encircle our earth, forming a planetary consciousness. The result of evolution was a geosphere surrounded by a biosphere, and now an emerging noosphere or layer of human thought and its products is enveloping the biosphere and the geosphere. Essentially, Teilhard held that noogenesis is a Christogenesis that will end in the for-

mation of a theosphere. For the Jesuit mystic, the Divine Center of this noogenesis is the God-Christ of spiritual reality.

The idea of a forming noosphere was also explored in the writings of the Russian philosopher Vladimir Vernadsky (1863–1945), while Herbert Spencer and the American anthropologists Alfred Kroeber (1876–1960) and Leslie A. White (1900–1975) spoke of the ‘superorganic’ or human culture as an outgrowth of an organic evolution preceded by an inorganic development.

Throughout evolution, there have been critical thresholds crossed which account for the uniqueness of both life over matter and the human being as a person with an immortal soul over all other life forms. Unlike Thomas Huxley, Ernst Haeckel, and Charles Darwin, Teilhard claimed that the human being is separated from the great apes (orangutan, gorilla, chimpanzee, and bonobo). Obviously, for the Jesuit priest, the process of evolution has not been a continuum: from time to time, evolution has crossed critical thresholds resulting in the emergence of qualitatively different manifestations of matter as ever-greater complexity and ever-more consciousness or concentrated spirit. For Teilhard, the evolution of matter is quintessentially the evolution of spirit. Unlike all other forms of life, he believed that the human being has an immortal soul. For Teilhard, the ongoing spiritual evolution of our species is moving toward an Omega Point as the divine destiny of human evolution on this planet. This future Omega Point will be the ultimate-outcome or final-synthesis or end-goal of human evolution on the earth.

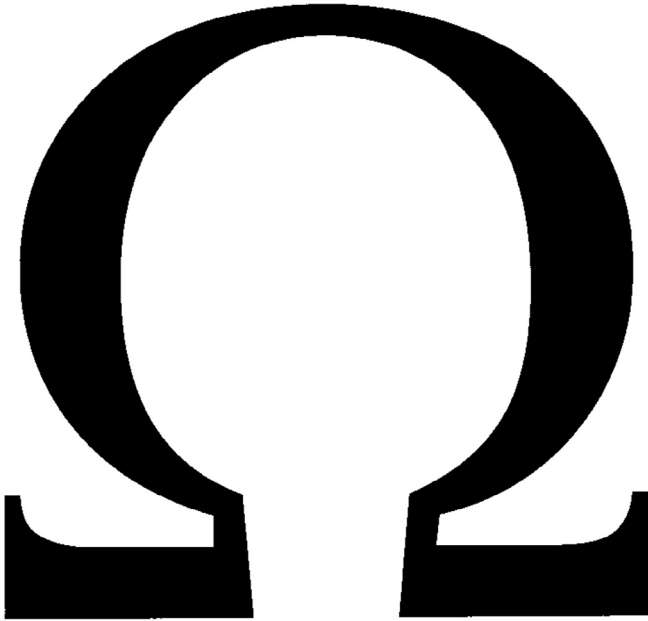


Fig. 8. Omega Point (symbol).

His theism maintains that God-Omega is one, personal, actual, and transcendent. In the last analysis, Teilhard's incredible vision of the end-goal for human evolution on the earth held that God-Omega and the Omega Point will become united in a mystical synthesis of spiritual unity.

Grounded in agapology and centrology, Teilhard's interpretation of evolution claims that the human layer of consciousness now engulfing our earth is becoming a collective brain and heart that will, in the future as a single mind of persons, detach itself from this planet and, transcending space and time, be immersed in God-Omega; the end-goal of evolution is a final creative synthesis of a united humankind with the universal God-Omega. Thus, his pantheism became (at least in part) a mystical pantheism. However, Teilhard did not take seriously the possibility of exobiology and exoevolution, e.g., the possibility that Omega Point events have happened, are happening, or will happen elsewhere in this universe. As a Jesuit priest, he wanted to maintain the uniqueness of the human being on this planet. Similar views of God and the World may be found in the writings of Samuel Alexander, Alfred North Whitehead, and Charles Hartshorne (among other philosophers). Most recently, Frank J. Tipler has extended Teilhard's planetary vision to that of a truly cosmic one, in which God-Omega will emerge through technological emulations countless billions of years from now just before the end of this universe!

CONSEQUENCES: POSITIVE & NEGATIVE

In general, the Judeo-Christian-Islamic tradition had not accepted the mutability of species (especially in view of the then-believed sudden and recent divine creation of the human being). In particular, the Roman Catholic Church did not accept organic evolution as a brute fact of natural history.

Consequently, it is not surprising that *The Phenomenon of Man* was denied publication by his superiors. Nevertheless, Teilhard obeyed his ecclesiastical authorities. He then wrote *Man's Place in Nature: The Human Zoological Group* (1949-1950) as a more scientific statement of his interpretation of evolution (focusing on our species) in terms of teleology and spiritualism. With controlled enthusiasm, he writes: "Man is, in appearance, a 'species,' no more than a twig, an offshoot from the branch of the primates – but one that we find to be endowed with absolutely prodigious biological properties.... Without the earth could there be man?" (Teilhard 1966, 15, 25). Unfortunately, the publication of this book was also denied, along with his request to teach in Paris. Even so, reminiscent of the silencing of Galileo Galilei, one can imagine Teilhard as an evolutionist saying to himself: "*Eppur si muove!*"

On 12 August 1950, Pope Pius XII issued the Encyclical Letter *Humani generis* in which he gave priority to a Thomistic interpretation of Divine Revelation as contained in the Holy Scriptures over the growing empirical evidence of the special sciences concerning earth history and life forms upon it. In this document, he warned that opinions on the theory of evolution may be erroneous, i.e., fictitious or conjectural. Briefly, for him, evolution was held to be merely a questionable hypothesis and possibly even sterile speculation or only false science. Obviously, this papal warning from the Vatican was (at least in part) a direct result of Teilhard's unsuccessful request for the publication of his slightly revised version of *The Phenomenon of Man* in 1948.

Because of his unendurable anguish in France, Teilhard left Paris and returned to New York City, now being more or less an outcast from the country of his birth. He had left all his unpublished manuscripts with Jeanne Mortier, his secretary in Paris; only after his death were Teilhard's three books and religious writings collected and made available to the public, because now the restriction on their publication was no longer binding. Becoming an associate at the Wenner-Gren Foundation (formerly the Viking Fund), he spent the last five years of his life dedicated to human evolution and his ever-present teleological view of this universe. Teilhard always claimed that Darwinism is necessary, but not sufficient, to account for the movement of forms of life from bacteria to our species; Darwin was a mechanistic materialist, but Teilhard remained a mystical spiritualist. Moreover, unlike the philosopher Friedrich Nietzsche (1844–1900), who emphasized the superior creative individual, Teilhard valued a collectively active humankind. And, the eternal recurrence of the same (as Nietzsche taught it) is replaced by the scientist-priest with a merely one-time framework for cosmic evolution.

Interestingly enough, the secular humanist Sir Julian Huxley appreciated Teilhard's religious humanism, which clearly did see our species, life, and earth history within the dynamic perspective of a synthesis grounded in planetary evolution. However, Huxley could not accept Teilhard's overall commitment to spiritual transcendence rather than to seeing evolution as a strictly naturalistic process.

During his final years in New York City, Teilhard twice took

the opportunity to visit fossil hominid sites in South Africa. New empirical evidence was giving more and more scientific credence to an interpretation of the earlier stages of human evolution. Unfortunately, at the end of his distinguished life, Teilhard was somewhat removed from significant new developments in evolutionary science, e.g., the 1953 discovery of a working model for the DNA molecule, which became a key aspect for understanding and appreciating the emergence of new life forms through random genetic variation and necessary natural selection within dynamic populations. For the evolutionist as materialist, organic creativity is grounded in chance and contingency. If he were alive today, then what would Teilhard think about the far-reaching applications of nanotechnology and bioengineering for further human evolution? (Similarly, one would love to know what were the aged Darwin's final thoughts on religion and theology as he reflected upon evolution during his daily strolls down the Sandwalk behind Down house.) Furthermore, what would Teilhard think of the scientific possibility of creating transhumans in the near future, and posthumans emerging in the remote future?

Even though he espoused a geological perspective and saw our species continuing to evolve for millions of years, Teilhard still held that humankind would never leave this planet! He offers a myopic vision of the future, in which our species is spiritually nailed to the earth and absolutely alone in this universe. Of course, this suffocating centrology was necessary in order for him to believe in the formation of an Omega Point at the end of human evolution in terms of spiritual involution and divine convergence on this planet.

From time to time, especially during the last years of his life, Teilhard felt deeply the pain of being rejected by both his superiors in the Jesuit order and the pope of the Roman Catholic Church. He suffered moments of doubt, fits of weeping, and periods of depression; sometimes, his torments almost overwhelmed him and he was on the verge of utter despair. Apparently, Teilhard never took seriously the option of leaving both the Jesuit Society and the priesthood.

No doubt, one finds it very disconcerting that Teilhard wept over his pathetic ordeal within the Jesuit order. And, one may find it somewhat unsettling that, as a Jesuit priest, he spent considerable time traveling and communicating with several beautiful women whose friendship he encouraged, even though they could never find a lasting intimate relationship with this spiritual and mystical man who gave preference to a transcendent God over those individuals who loved him in this world. Of course, Teilhard was a man of flesh and blood who, struggling with his own beliefs and commitments within an intellectually hostile environment, no doubt needed that human companionship provided by those women who found him attractive in every way.

On Easter Sunday, 10 April 1955, Teilhard died of a sudden stroke in New York City; outside the apartment, spring was flooding the early evening with sunshine. Several weeks later, he was buried at St. Andrew-on-Hudson, in the cemetery of the Jesuit novitiate for the New York Province (his earthly re-



Fig. 9. Grave Site.

mains far removed from France). By the fall of that year, the first edition of *The Phenomenon of Man* was published in its author's native language. However, in 1962, a Monitum decree issued by the Holy Office on Teilhard's works went as far as to warn bishops and heads of seminaries of the doctrinal errors said to be inherent in the Jesuit scientist's philosophical interpretation of humankind within evolving nature.

REMEMBERING TEILHARD: SOME FINAL THOUGHTS

Teilhard's evolutionary optimism seems to have overlooked the extensive role that extinction plays throughout organic evolution (not to mention excessive evil); those mass extinctions, which caused all the trilobites, ammonites, and dinosaurs to vanish forever, should tarnish the unbridled optimism of any rigorous evolutionist. Furthermore, Teilhard's vision does represent a form of the anthropic principle; the evolving universe is the way that it is in order for our species to emerge in cosmic evolution. However, the pervasive extinctions throughout organic evolution, and the fact that even archaeobacteria would not have existed several billion years ago if the universe was not the way that it was then, will not convince many serious thinkers that it was inevitable for our species to appear in this universe. The anthropic principle represents anthropocentrism at its extreme.



Fig. 10. Cosmic Perspective.

Once again, claiming that everything that rises must converge, Teilhard grounds his philosophy of evolution in mysticism. The movement of Matter, then Life, and finally Thought is both forward and upward to a mystical union with God-Omega (the beginning and end of cosmic evolution). But most scientists will not follow Teilhard's directional interpretation of this evolving universe. For the Jesuit priest, cosmic chaos and probability are giving way to human teleology and certainty. Teilhard's severest critic was the British zoologist Sir Peter Medawar, a Nobel laureate who wrote a scathing review of *The Phenomenon of Man*; he found Teilhard's evolutionism to be not only preposterous, but also an attempt on Teilhard's part to deceive himself. However, the prominent geneticist Theodosius Dobzhansky praised Teilhard's vision of evolution and was greatly influenced by it.

Adding insult to injury, as did the late paleoanthropologist Louis S. B. Leakey, the Harvard paleontologist Steven Jay Gould maintained that Teilhard had been directly involved with the infamous Piltdown man hoax. One may suspect that Leakey was too eager to discredit the outstanding scientific accomplishments of Teilhard by implicating him as a direct conspirator in the unfortunate Piltdown man fraud after the beginning of the last century. And, one may argue further that it is both surprising and disappointing that Gould had besmirched the international reputation of an exemplary natural

scientist and virtuous human being by suggesting that Teilhard had been a conspirator in the Piltdown man hoax without a single thread of incontestable evidence to support such a damaging claim. Invoking "innocent until proven guilty" and in light of his reputation as a very distinguished natural scientist and most commendable human being, it seems only fair to assume that Teilhard was innocent of any direct wrongdoing in this singularly outrageous perpetration of a false discovery in human evolution research. In fact, during his later years, Teilhard himself received several prestigious awards for his extraordinary contributions to geopaleontology.

No doubt, Teilhard himself would be alarmed at the present return of biblical fundamentalism and so-called scientific creationism. Yet, his own interpretation of cosmic reality represents a form of intelligent design. Nevertheless, the optimistic Jesuit priest was committed to science and evolution, despite his metaphysical speculations and mystical orientation. He was, in some respects, a freethinker as religious humanist; a visionary and futurist who foresaw the collective consciousness of our global species increasing in terms of information and technology. It is to Teilhard's lasting credit that he introduced into modern theology the fact of organic evolution at a time when this scientific theory of evolving nature was rejected by many who saw it as a threat to their entrenched beliefs and traditional values. Unfortunately, in trying to rec-

oncile the irreconcilable (as I see it), Teilhard pleased no intellectual community. Even today, although wisely not opposed to the fact of evolution, the Roman Catholic Church has as yet not offered a comprehensive and detailed explanation for both the origin of life and the appearance of humankind in order to replace a neo-Darwinian interpretation of planetary history or a neo-Teilhardian vision of this universe.

Unlike the iconoclastic Renaissance philosopher Giordano Bruno (1548–1600), whose glorious cosmology argued for this universe being one of eternal time and infinite space and endless change, as well as for the existence of intelligent life forms elsewhere in this cosmos and the existence of countless island universes, Teilhard focused exclusively on the earth and gave special attention to our own species. Briefly, the Jesuit-scientist has given us a phenomenology of this planet, i.e., an analysis of those essential structures of evolution throughout earth history in terms of emerging consciousness and spiritual intentionality. In this respect, he was not in step with those modern thinkers who offer a truly cosmic perspective in which the existence of humankind is merely a fleeting event in this material universe. Instead, Teilhard's mysticism reminds one of the cosmic visions of Joseph Ernest Renan (1823–1892) and Miguel de Unamuno (1864–1936).

Surprisingly, on 23 October 1996, Pope John Paul II issued a statement to the Pontifical Academy of Sciences in which he endorsed evolution as being “more than just a theory” and thereby biblical fundamentalism and so-called scientific creationism were dealt yet another blow to their vacuous claims about the origin of this universe and the appearance of life forms on planet earth. With bitter irony, it was the silenced Teilhard who had committed himself to the fact of evolution, as well as to the indisputable powers of science, reason, and open inquiry. Both spiritualists and materialists can admire Teilhard's own courageous commitment to evolution. Furthermore, he offered a religious humanism that recognized the value of both an individual and our collective species. Actually, Teilhard had even anticipated our age of the Internet; he envisioned an evolving global mind in terms of love, spirit, information, and technology. His extraordinary imagination had glimpsed a planetary unity of collective consciousness that foreshadows the emergence of a global super-organism. Such insights still continue to inspire enlightened and imaginative intellects.

A rigorous evolutionist sees reality grounded in energy (not spirit) and manifesting no evidence of a divine plan unfolding throughout this dynamic universe; our species is linked to material nature, and it is species-centric to claim that a mystical destiny awaits humankind at the end of cosmic time. Because of his pre-DNA orientation and pre-space-age perspective, Teilhard had not envisioned the scientific enhancement of our own species through the application of nanotechnology and bioengineering. Consequently, the Jesuit priest did not foresee the possible coming of transhumans or the future emergence of posthumans. Instead, his vision emphasized the ongoing convergence and involution of human consciousness on the earth; it gave no serious attention to the probability

that our species would leave this planet, surviving and evolving elsewhere in this dynamic universe.

CONCLUSION

In modern astronomy and cosmology, scientists have discovered many aspects of this universe that were unknown to Teilhard during his lifetime. Consequently, one wonders what he would think of these new objects and new ideas that are grounded in quantum mechanics and relativity physics: quarks, quasars, pulsars, black holes, superstrings, Higgs bosons, dark matter, dark energy, negative time, eleven dimensions, parallel universes, and an eternal multiverse. No doubt, Teilhard would have incorporated all these entries into his own spiritual and mystical worldview. Furthermore, he would certainly be delighted with the ongoing quest for a theory of everything. However, Teilhard would probably be reluctant to take seriously the existence of a universe with no absolute beginning and no absolute end. Furthermore, he would probably be reticent to accept the speculation that future-created sentient super-intelligent computers could become capable of both out-thinking and out-performing human beings.

From ancient philosophers to modern scientists, both cosmologists and astrobiologists have speculated on the possibility of life forms (including intelligent beings) existing on other planets elsewhere in this material universe. Today, scientists acknowledge that there are billions of galaxies, each with billions of stars and, no doubt, billions of planets. This immensity is beyond human comprehension; the vastness of this universe alone should discredit any anthropocentric worldview. It must be remembered that Teilhard's assumed cosmology is, in fact, merely a planetology that focuses essentially on the recent emergence of our species in earth history. As such, the scientist-priest never took seriously the existence of life and thought elsewhere in material reality. Of course, this does not discredit his deep concern for the ongoing survival and future fulfillment of evolving humankind on this planet.

In modern paleoanthropology, one may speak of the Anthropocene epoch as the present time of human evolution. In fact, fossil hominid species have been unearthed in Africa that had been unknown to Teilhard during his lifetime, e.g., *ramidus*, *anamensis*, *afarensis*, *platyops*, *africanus*, *sediba*, *robustus*, *boisei*, and *habilis*. New paleoanthropological sites in South Africa have yielded fossil evidence that substantiates hominid diversity several million years ago. These bipedal ancestors lived in small isolated groups and evolved as they adapted to sporadic changes in the environment. In at least one species, a dynamic genes-habitats syndrome (with ongoing cultural innovations) resulted in the emergence of cognitive skills, social cooperation, including shared intentionality and empathy, and symbolic language as articulate speech; all these aspects helped to evolve *Homo habilis* and the following *Homo erectus* into our *Homo sapiens* of today.

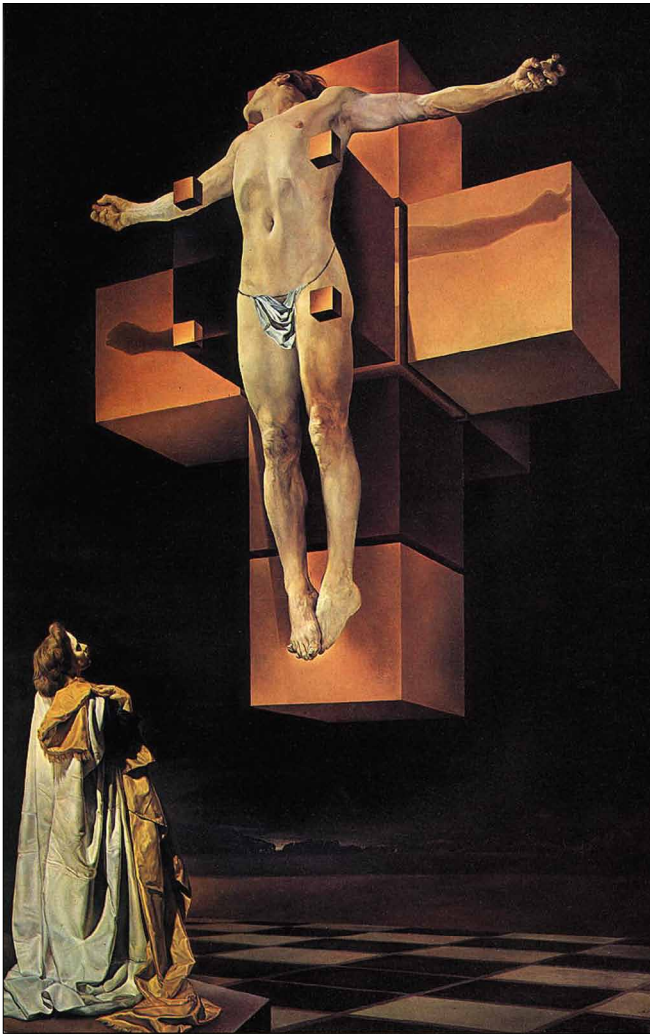


Fig. 11. Dali's *Crucifixion/Corpus Hypercubus* (1954).

(Raymond A. Dart's controversial "killer ape" hypothesis remains an intriguing interpretation of early hominid social behavior). In his writings, Teilhard emphasized the converging unity of our single subspecies.

Surely, in the future, paleoanthropologists will continue to discover other species representing the hominid adaptive radiation during the long Villafranchian time of the Pleistocene epoch. Nevertheless, if he were with us today, Teilhard would concentrate on the successful *Homo habilis*, *Homo erectus*, and *Homo sapiens* sequence of hominid evolution over the past 2 million years.

One wonders what Teilhard would think about the massive bones of the huge dinosaur *Argentinosaurus huinculensis* unearthed in 1987 from a Cretaceous fossil site in Patagonia, South America. It is likely that astonishing fossil hominid specimens are yet to be discovered and interpreted by geologists and paleontologists, e.g., the near-complete fossil remains of the enormous pongid *Gigantopithecus blacki* and the bipedal hominid *Homo habilis*.

Not until after Teilhard's death in 1955 did anthropologists

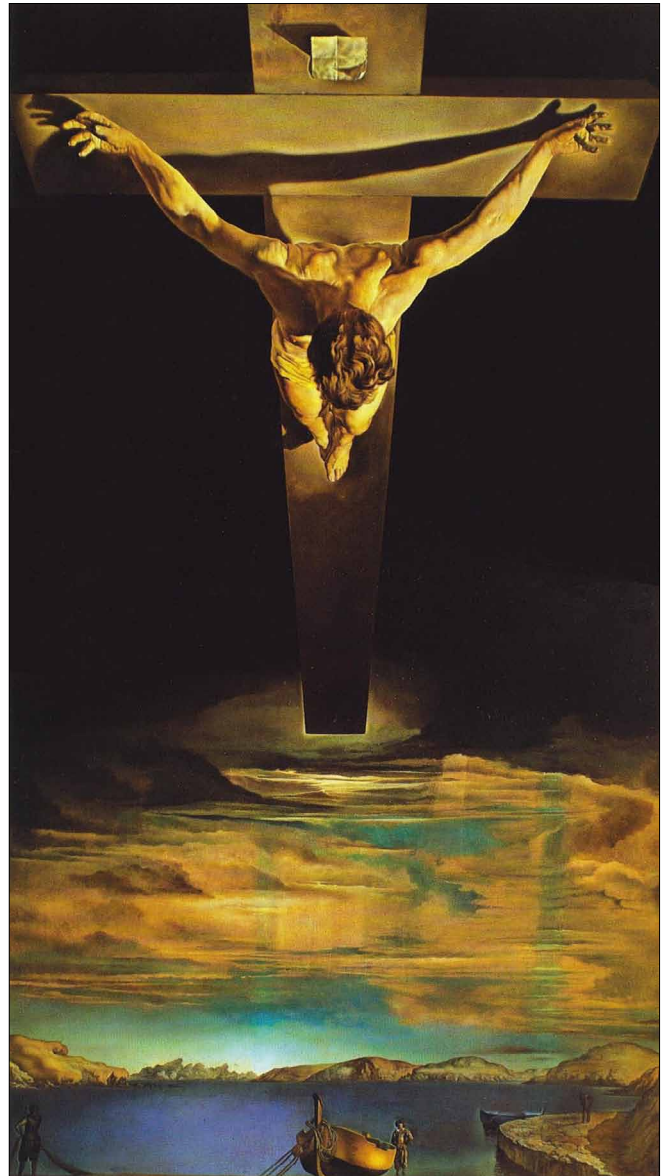


Fig. 12. Dali's *Christ of Saint John of the Cross* (1951).

begin their short-range, long-term observations of wild apes in their natural habitats. Over the years, these studies have revealed the fact that the four pongids are remarkable similar to our own species. Thomas Huxley, Ernst Haeckel, and Charles Darwin himself would be surprised at just how close the great apes are to the human being in terms of biology, psychology, and behavior. One may conclude that our own species differs merely in degree, rather than in kind, from the orangutan, gorilla, chimpanzee, and bonobo. The scientific evidence challenges Teilhard's claim that *Homo sapiens* is a unique species that is separated from all the other life forms on this planet. In fact, because of their undeniable similarities, paleoanthropologist Richard E.F. Leakey has even suggested that the four pongids and the human animal should be placed in the same taxonomic genus.

It was the bold Teilhard who said: "We must dare all things!"

Certainly, he would be readily open to accepting all our modern advances in both science and technology, including the awesome possibilities of nanotechnology and bioengineering, but within ethical guidelines. As such, one may argue that his vision of the future had even anticipated, to some degree, the scientific creation of a transhuman being.

Six decades after his death, Teilhard remains both a controversial and provocative thinker for our modern age. As I see it, despite his earth-bound and human-centered orientation, he has made two lasting contributions to an emerging ultra-anthropology: his boldly embracing the scientific fact of organic evolution in general, and his astutely recognizing the global convergence of our species in particular. Clearly, Teilhard's evolutionary vision is in sharp contrast to Aquinas's static and outmoded worldview. Consequently, Teilhard's dynamic theology is a radical departure from the traditional theology of Roman Catholicism. By incorporating both past-time and future-time into his philosophical synthesis, Teilhard developed a planetary vision that is in step with the continuing advances in the special sciences and natural philosophy.

Always optimistic, Teilhard never took seriously the possible extinction of our own species due to an insidious global plague or a devastating meteor strike. No doubt, his ever-present mysticism allowed him to overcome the possibility of human extinction. Even so, the wisdom of evolution maintains that, in the ongoing struggle to adapt to pervasive change in nature, no species is exempt from the treat of extinction.

One may envision a forthcoming neo-Enlightenment. With both the will to evolve and dynamic integrity, resulting in emerging teleology through nanotechnology and bioengineering, I refer to our distant enhanced species as *Homo futurensis*, to be followed in deep time by a posthuman life form as the cosmic overbeing that will inhabit the deep space of this expanding universe.

Teilhard had a penetrating awareness of ultimate reality (as he intuited it). He did not offer a metaphysics of universal being, but rather a metaphysics of cosmic becoming, with an intense and deliberate focus on our own species. He was a unique individual of intelligence, integrity, and sensitivity. As a Jesuit priest, his fascinating but tragic life was a scientific but solitary journey to a mystical vision of cosmic becoming. He envisioned an ultra-anthropology that would be a comprehensive and integrated interpretation of and appreciated for the place of our human species within the awesome vastness of this dynamic and evolving universe. As such, Teilhard experienced both the agony and ecstasy of time and change while meditating on the steppes of Mongolia, serving on the blood-stained battlefield of a war-torn humanity, researching among those rocks and fossils that represent a remote geological past, and meditating on the distant destiny of humankind as he reflected on evolution in the deepest recesses of his soul.

In the last analysis, one may argue that Pierre Teilhard de Chardin himself best represents that individual who had been sincerely dedication to grasping the significance of evolving humankind within this dynamic universe.

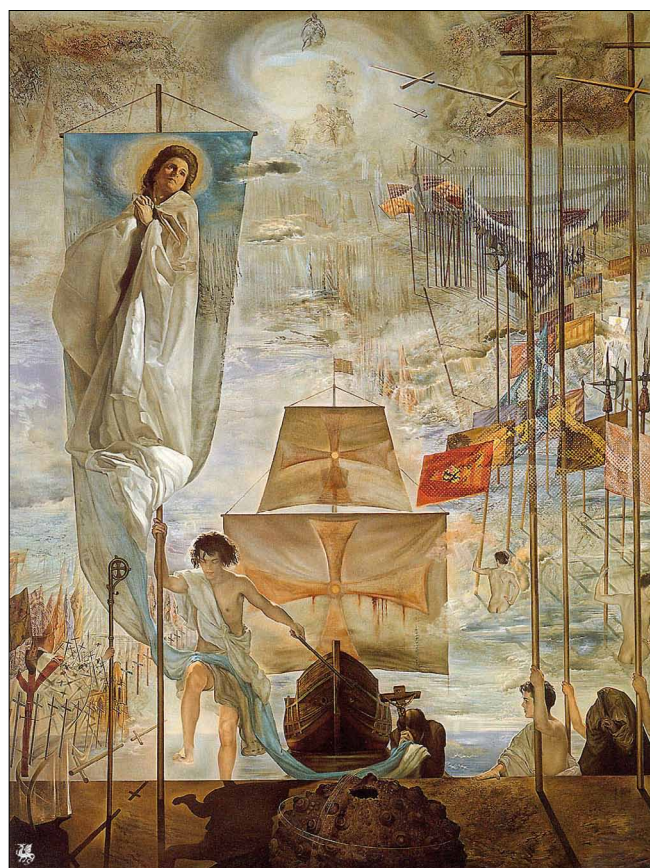


Fig. 13. Dalí's *The Discovery of America by Christopher Columbus* (1959).

NOTE

In the early 1950s, both Salvador Dalí and Pierre Teilhard de Chardin were living in New York City. Dalí's magnificent oil paintings of that decade unintentionally but vividly reflected Teilhard's mystical Roman Catholicism grounded in a converging planetary Christogenesis.

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From Primate Communication to Human Language: Anthropological & Philosophical Speculations

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OD KOMUNIKACE PRIMÁTŮ K LIDSKÉ ŘEČI: ANTROPOLOGICKÉ A FILOZOFICKÉ SPEKULACE

ABSTRAKT Mluvená řeč nezanechává v lidské evoluci žádné přímé empiricky vysledovatelné stopy. Původ a raná historie lidské komunikace stále čekají na vědecký výklad. Řeč slouží jako nástroj myšlení, který není omezen časem a prostorem. Je to unikátní systém podporující nekonečnou lidskou kreativitu. Pro správnou analýzu jazyka musí vědci nalézt vztahy společné všem formám komunikace. Při přípravě tohoto příspěvku byly proto využity poznatky získané ze studia komunikačních systémů primátů, zejména lidoopů. Posun od systémů zvířecí komunikace k lidským symbolickým jazykům byl zapříčiněn celou řadou faktorů. Raní hominidé užívali a rozvíjeli stále komplexnější jazyk jako nástroj v rámci své adaptační a reprodukční strategie.

KLÍČOVÁ SLOVA Komunikace; evoluce; řeč; tvorba nik; optimální strategie při získávání potravy; primáti; prajazyk

ABSTRACT Spoken language has left no direct empirical traces in human evolution; the origin and early history of communication in humans has been left open for interpretation. Language provides a means for reflection that is limitless in space and time, and it is a unique system that promotes endless creativity. In order for a proper analysis of language, researchers must find universals shared by all forms of communication. Through the insights gained in decoding primate communication systems, this article covers those studies that have tested the potentialities of comprehension in the great apes. A set of events caused a shift from animal communication systems to human symbolic languages. In this anthropological and evolutionary context, early hominids utilized and developed ever-more complex language for adaptation and reproduction.

KEY WORDS Communication; evolution; language; niche construction; optimal foraging; primates; proto-language

OPENING REMARKS

Animal Communication Systems (ACS), in early hominids, gradually emerged into a proto-language due to the necessity for the usage of displacement, which resulted in a specific niche that permitted the successful survival and reproduction of early hominids; this process led to the symbolic language of today. Language is distinctly human, “it is the foundation on which all modern human behavior rest(s)” (Johanson et al. 2006, 106). Language affects all aspects of how humans perceive the world, but at this time scientists are unaware of its origin. Having an evolutionary framework of language is vital

to concretely knowing the unique nature of what it means to be human. In addition, it is vital to coming to terms with the necessity for the growth of societies, the flourishing of technology, and the “inextricably entwined...symbolic consciousness” (Tattersall 2010, 4) that we experience today.

Researchers debate on interpreting the evolutionary development of human language as a gradual process, or as one that is a punctuated adaptation. Anatomically and neurologically speaking, language in non-human primates is physically impossible to achieve; they are unable to produce the sounds necessary to emulate language. This genetic breakthrough is only present in modern humans.

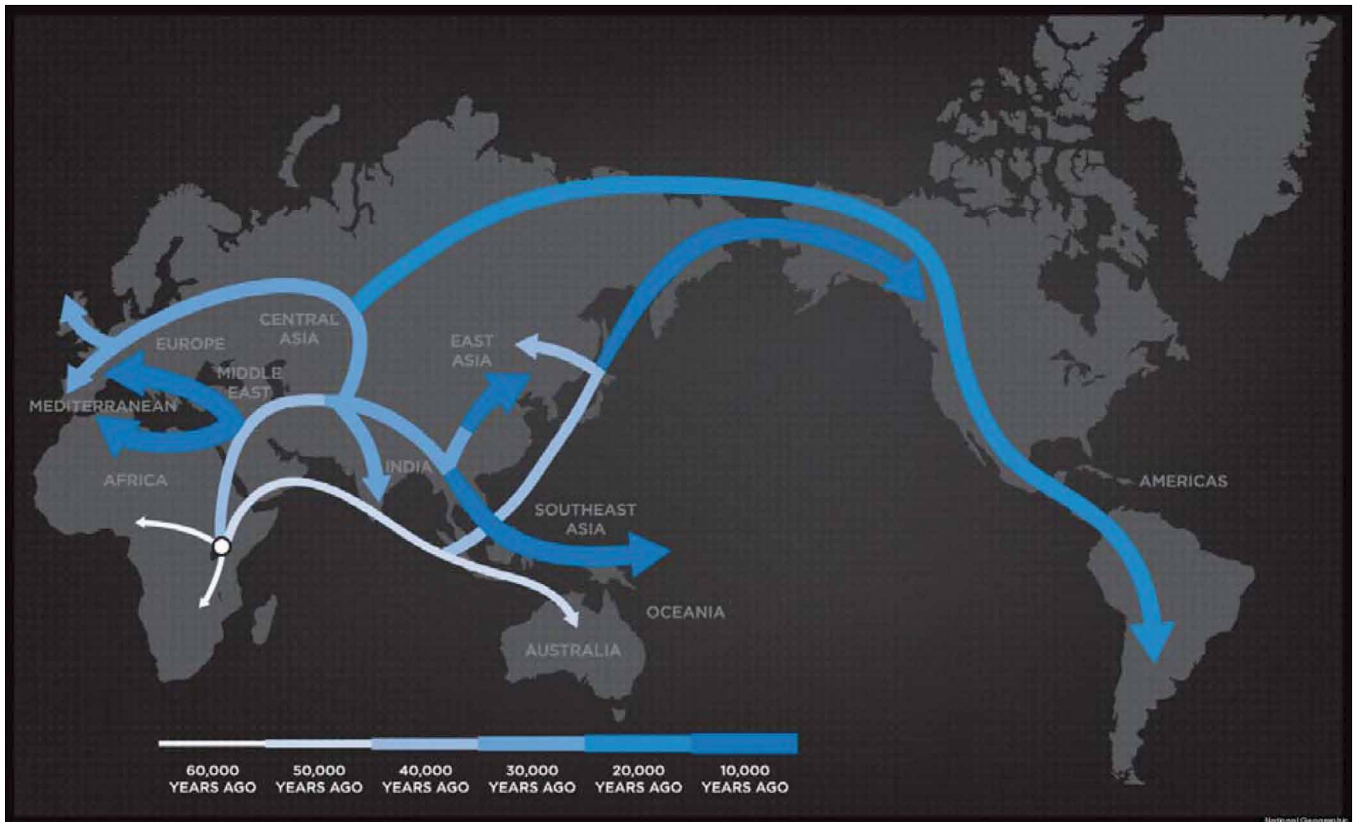


Fig. 1. Human Migration. Photo from: National Geographic/Genographic Project/ The Human Journey: Migration Routes, Fall 2014.

Within the last 50,000 years, a genetic mutation “hardwired the brain and permitted a cultural flowering seen throughout the archaeological record of the Upper Paleolithic” (Tattersall 2010, 4).

The emergence of key areas in the brain for the production of language, such as Broca’s area and Wernicke’s area, are only present in modern humans. While these key structural developments allowed for the language of today, this does not mean that communication through vocalization is not utilized by other species in the primate order: “Language evolution is intimately linked to brain evolution, and since our brain has been growing and reorganizing over the past 2 million years, it seems unlikely that language suddenly arose from some radical new mutation. Human brains could have been language-competent long before spoken languages appeared” (Johanson *et al.* 2006, 106). Speech, comprehension, invention, and creativity are present in non-human primates and are particularly more complex in the great apes. Studies in scientific facilities and in the wild have validated the disparity between language in humans and Animal Communication Systems (ACS). In this analysis, two major challenges emerge: one being the study of determining the universalities in vocalization, and the other is the origin of language. What allowed for this developmental shift?

There is a major difference between the ability to vocalize and the means to establish a structured system where individual units provide for an unrestricted conversation that transcends

the limits of time and space. Language provides meanings to what would be unintelligible sound. When studying the origin and development of language, one must keep in mind the fact that proto-language led to the emergence of a more complex and sophisticated brain, which permitted the emergence of modern language. The development of language was a dialectical feedback process known as niche construction theory. Odling-Smee, F. J. *et al.* (1996) claimed that behavior shapes the genetic makeup and then that genetic makeup shapes behavior. An organism’s behavior modifies the environment to suit one’s survival and reproductive needs. As a result, these behaviors over time become embedded into the genetic makeup of that species. Studying primate vocalization is difficult because it is not the same as finding fossils and artifacts that can be preserved; rather, language leaves no direct empirical record. Only during the last 5,000 years have written records been documented, which accounts for roughly a very small fraction of primate history. Evolutionary linguists need to investigate what properties make humans similar to other members of the primate order, and also what circumstances provided for language development only in our species.

DEFINING ANIMAL COMMUNICATION SYSTEMS

In order to understand the origin of language studies, one has to recognize the importance of animal communication sys-

tems (ACS). Marc Hauser, the author of *Animal Communication Systems* (2000), created three categories which all ACS must follow. Communication exists because it provides the species with a niche that promotes individual survival, signals that relate to mating and reproduction, and lastly calls which relate and are comprehended by members of the speech community. Why are humans the only species to possess language if it so beneficial? Evolution is a cost-effective process. Language was developed not because it was useful, but because evolution is amplified on an already existing behavior in early hominids. Behaviors performed by a singular species are acts used to increase the reproductive fitness and survival of that species: "once it was thought that things like warning calls were entirely automatic, like the way you blink if someone pokes a finger in your eye" (Bickerton 2009, 19). However, communication as stated in the categorical classification of ACS is out to benefit fitness, and this vigor means an overall survival for all kinship members in a group.

Understanding vocalization in non-human primates is a convoluted process; one must have the proper scientific perspective on communication. It is pivotal not only to comprehend primate communication, but also to obtain knowledge about all animal communication systems: "decoding the function and meaning of a foreign culture's sounds and gestures is a notoriously difficult problem" (Hauser 2000, 1). However, decoding a non-human primate call is similar to decoding a hidden message. The way to translate this message is to determine the meaning of the sounds created. Communication is ambiguous, and utterances do not describe an object directly. The only way researchers could prove the validity of what an utterance represents is by identifying the foundational background within a dynamic system, and through determining the functional meaning behind calls.

DECODING VOCALIZATION

Decoding primate vocalization is a complex task; it is more challenging than learning a foreign language, because it requires breaking a code that has no continuity and is unintelligible to its listener. The importance in differentiating the subtleties of a call from a noise is similar to humans recognizing the difference between when people cough or sneeze and speech sounds. Through habitual actions and trial and error, social species are able to differentiate calls from noise. The brain through the repetitive firing of neurons eventually creates connections that make distinctions between calls and noise. Dynamic system theory (DST) is a model that changed the science community's perspective on social communication. Animal communication, as stated, was once believed to be a detached component system. This view failed to take into account variables going beyond the individual, such as "biological (genetics), psychological (hormonal), emotional, and social factors" (King 2003, 9).

Translations from one language to another are performed by a linguist, who undergoes the process of "moving between

two languages, where the meaning of words in each language is known. The difficulty as we can see is that [...] we cannot translate animal vocalizations because we lack the corresponding dictionaries (referring to a hypothetical primate dictionary)" (Hauser 2000, 2). The dynamic system is "composed of elements that are neither separate nor independent [...] as opposed to this atomistic view, dynamic systems theory argues that one can only break a system down into its constituent parts with the understanding that these elements are internally related to one another" (King 2003, 5-6). Understanding communication systems allows researchers the ability to identify the interconnected parts of the relationship between subject and object.

Humans and the great apes are living in communities with deep social roots. Environment impacts the fitness of individuals and groups directly. Gregarious primates: "Right from birth, they shape, and are shaped by, the world, through interaction with their mothers, and in many cases with other relatives and social companions as well" (King 2003, 6). The maturation period in primates is substantially longer than most species on this planet; furthermore, it takes an extensive period of time for primates to be able to survive in our environment in comparison to some species that start walking and "living" immediately after birth. Humans take such an extensive period for social growth due to the development of the brain and the necessity for relying on our communication skills, which are so vital to our survival and reproductive fitness.

Communication is constantly developing between partners. As time progresses in primate social activity, individuals in the communication system become more aware of their partners and, as a result, become more efficient in their progress for sharing information between one another. This allows for effective survival strategies and, due to this excellent communication, social behavior constitutes a pivotal role in outwitting species that are physically superior, thereby providing an example of niche construction theory in practice. As stated, determining the elements (universalities of vocalization systems) is crucial to having a proper perspective on what all communication systems share. Researchers are left with speculating on what is the foundational unit of all animal communication systems. Knowing this structure allows researchers to understand how communication systems arise in animals. Specialists in the field of communication have concluded that the basic unit in primate vocalization is a call-response: "alarm call is sufficient to elicit an escape response" (Hauser 2000, 5). Linguists, while aware of the importance of alarm calls, are still trying to conclude if one-word commands are the foundation for structure in communication. Can these sounds be broken down or expanded to link multiple commands together to form a different alarm call? In order for anthropologists to uncover non-human vocalization, one must determine the fundamental units in the vocal repertoire. Both vervet monkeys and baboons have particular calls that allow them to defend themselves against predation. In the case of birds of prey, when a monkey makes a call, con-

specifics in the group scan the skies for this predator. It is the same in the case of a leopard sneaking up and trying to attack a group: “We know from developmental studies that vervet infants give eagle-sounding-alarm calls to birds (creatures) that fall outside the class of predators (i.e., elephants, giraffes, lions) and that, with time, this class narrows. Consequently, it appears that vervets are born with an innate representation of something signifying ‘dangerous things in the sky’. With time, experience weeds out the inappropriate items and selects for the appropriate ones” (Hauser 2000, 11). Humans are subject to the same developmental process in which, through trial and error, one develops an understanding of language. Referential theory sheds light on the belief that calls have intention and also that, like humans, non-human primates have “call-specific responses” similar to that of humans.

Breaking down this vocal code has two major roles. First, through recorded playback, one can reevaluate a call as a frame of reference. Since vocalization is not a written code, this is the only possible way of evaluating. Second, the vocal pitch and contour of the mouth make a major distinction on what call is being utilized. The reason that these two aspects are crucial to scientific inquiry is because vocal analysis is very different from the examination of written messages. These two variables allow the researcher the ability to discover the meaning behind calls.

Researchers at this time have pinpointed that “pitch contours” are crucial in the meaning behind the call. Frequency in pitch can change a call. Pitch-contours are present in human speech. Hauser has broken pitch into three important dimensions (Hauser 2000, 6):

1. Is the pitch contour a vehicle for emotional expression, comparable to the prosodic cues that we impose on our utterances? (e.g., when one is trying to emphasize a point, one cues another person through pitch.)
2. Is the contour like voice onset time for consonant-vowel pairs; something that allows us to distinguish between “ba” and “pa”?
3. Is the contour a phoneme, something that can be recombined with other sound segments, as when we create the words “super” and “pursue” by rearranging the same syllables.

Subtleties in pitch permit researchers to identify particular calls that pertain to specific social contexts. The differentiation among calls of rhesus monkeys and baboons have proven that pitch is a key universal indicator. Monkeys were subjected to tests in which they heard play-back calls from hidden speakers. The experiments categorized the calls into “grunts” (used as a pleasantry), barks as a form of threat, and copulation screams in terms of satisfaction (Hauser 2000, 8; Cheney *et al.* 2008, 80-83). Cheney’s studies were in the context of social hierarchy. In baboon communities, this evidence demonstrated the usage of internal structural changes in pitch and their usage for particular situations. The next step in the scientific investigation was to determine: “how subjects would

respond to a signal that combined a pulse from a grunt with one from a copulation scream” (Hauser 2000, 7). In the early stages of vocalization studies, primates were considered to naturally have a set of vocal signals in which each call, or occasionally a combination of calls, meant something particular. Research performed on non-human primates has led specialists to the hypothesis that primates use their vocalizations as a form of expressing their emotions. This behavior is comparable to human infancy, in which children cry when hungry, angry, or in pain. This premise on the emergence of human vocalization is an extension of an already superimposed system. Hauser stated that this has been the common consensus, but utilizing communication for expression of emotions is not the only reason animals communicate; some animal sounds are referential, which means: “That a listener could derive relevant information about the context,” which triggers in the mind a particular event or object. However, in order to study this discipline, Hauser claimed that we need to have four criteria in mind (Hauser 2000, 10):

1. Calls represent the lowest level in terms of functional units.
2. Particular social situations result in specific arbitrary calls at that moment, not past or future situations.
3. Primate calls represent whole objects, not particularities of the object (assuming primates are compared to children in their early stages of development).
4. Assumption that the animal is calling with the intention to warn others.

These principles are crucial in maintaining a focus on discovering a “primate dictionary.” What allows cryptanalysts the ability to determine a message with efficiency is finding repetitions in a decoded message. However, in some cases, as in the usage of a homophonic substitution, “each letter is replaced with a variety of substitutes” (Singh 2000, 52). In rhesus monkeys there is this practice, where calls identify food sources. This type of communication is dependent on the type of food discovered. Hauser’s results identify a context that one can understand:

Consider, as an analogy to the rhesus case, a translation of warble into ‘caviar’, harmonic arch into ‘fish eggs’ and grunt into ‘potato’. Now imagine that you hear someone at a restaurant repeatedly saying ‘potato’ as he eats forkful after forkful. Eventually, you habituate and carry on eating your own meal. If, all of a sudden, your vocal neighbor says ‘caviar’, you would presumably perk up and orient, not because of an acoustic difference but because of a referential difference, and a meaningful one at that. Conversely, if he starts repeating ‘caviar’ and then switches to ‘fish eggs’ an acoustic difference would certainly be noticed, but there is only a trivially important referential difference (Hauser 2000, 12).

The subtle difference between a warble and a harmonic arch distinguishes between differing terms for a type food. Grunts, in this example, are significant because there is no conceptual relation to the other terms. However, in all cases, the ability to recognize differing terms is present. This data shows that primate vocalization is more complex than just simply an expression of emotion; it is used as a way to convey information about objects and events. What allows researchers the ability to make this inference is dependent upon the call having specific identity. This is proven based on the reactions that conspecifics have in the context of a call.

ACS are founded on functional reference in which species pick out an object in the environment and direct the attention of group members toward it. The main importance of these calls is to provoke a particular response from the listener. In the case of vervet calls, they are not specifically directed toward a referent in the world. In ACS, there is no necessity for particularities in vocalization. As long as the call serves the purpose of survival, then there is no need for a specialization of the communication system. Objects are only utilized for explicit events revolving around survival and reproduction. Vervet calls are “specific responses to specific situations, complete in themselves, and more than that, they’re responses that have had, in the past, a demonstrated capacity to improve the fitness of those that used them” (Bickerton 2009, 45). If the calls did not result in longer lives and more offspring for individuals, then they would have never been passed on as learned behavior. From a niche construction framework, contextual calls make sense in vervet monkeys: “Vervets needed alarm calls because they were heavily predated,” and over time these calls were eventually ingrained in their (instinctual) evolutionary makeup (Bickerton 2009, 116; Burling 2005, 51-52).

Non-human vocalization appears limited in its complexity, but for those species that possess these qualities, they know of no supplementary method. Their means of communication allows them to enhance their fitness through manipulation. Humans use language primarily for informative means. The fundamental difference between these two systems is that “ACS units are indexical because they’re designed to manipulate others. Those others have to be right there in the present time at the present place if they’re going to be manipulated” (Bickerton 2009, 48). Language, on the other hand, is symbolically designed to share information past, present, and future: “we mentally decompose the world around us into a vocabulary of discrete symbols, which we can combine and recombine in our minds to imagine alternative worlds” (Tattersall 2010, 2). The capacity to transcend time and space is known as displacement. Displacement is crucial for the existence of language. If symbolic communication did not allow individuals the ability to signal or warn others, then the ability to discuss future events and reminisce on past proceedings would never have persisted in humans.

THE HOMINID-PONGID SPLIT AND ITS IMPACT ON LANGUAGE

Research has been conducted on primate vocalization for the past century, and was inspired by the discovery of the alarmingly similar genetic makeup that we share with the pongids. As a result, “more and more people assumed that most if not all of what had been seen as typically human traits and behaviors were no more than expansions of traits and behaviors found among the apes” (Bickerton 2009, 55). Extensive research has been done by scientists to test this theory. It was held that if one is going to find precursors to language, then the antecedents would be present in these species. Evidence has shown that each species follows its own adaptive niche, it is not a linear progression. The difficulty that science has been left with is that language and symbolic studies are trying to get into the minds of these apes. Does one know if these pongids are aware of what they are doing? In experiments, the great apes may have the ability to perform certain tasks, but will they understand the reasoning behind their actions? Are pongids merely mirroring scientists, or are the great apes able to create meanings behind these abstract and critical concepts? The difference between symbolic and non-symbolic communication is that the former system refers to symbols without the objects physically being present.

To understand why the pongids are so similar to humans, one must focus on the individual characteristics that make the great apes unique, while keeping in mind that communication systems are designed solely to take care of a species’ own evolutionary needs. There’s no evidence of a universal cumulative or progressive trend in communication systems. However, humans unintentionally follow a human-centric bias that places our species in a hierarchy above other species.

In non-human primates, communication is not as sophisticated as human language. In many cases, it is just a form of warning other primates there is danger approaching. Chimpanzees vocalize with as many as 34 distinct calls; their rough grunting is a form of greeting to members of higher status. Vocalization for chimpanzee, through the forms of grunts, is also a form of excitement toward food, which is shown in mother and infant bonding. While this vocalization demonstrates intelligence in chimpanzees, it is also present in the other three pongids (bonobo, gorilla, and orangutan). In many cases, this communication is not enough evidence to prove that these species have meanings behind their calls. Scientists claim that cognitive ability is not utilized, because the environment does not demand them to alter their ways of living. This statement has been the major debate over what is the true influence in obtaining proto-human cognitive traits: “Without biology (life), behavior cannot occur and [a] physical attribute cannot be manifest. Without experiences in diverse environments, the organism cannot achieve development, maturation, conditioning, and other kinds of learning” (Rumbaugh *et al.* 2003, 42). The notion that nature and nurture play hand-in-hand took decades for researchers to under-



Fig. 2. Koko the Western Lowland Gorilla Performing Sign Language Photo from: flyladylori.com/2011/07/happy-40th-birthday-koko-the-talking-gorilla/, April, 2011.

stand. As a result of an inaccurate analysis of the complexity of animals, researchers were running ineffective experiments on the non-human primates. What scientists must keep in mind is that human communication is not an ideal form of exchanging information. The misconception that individuals fail to understand the process of evolution is that adaptation follows a path that is species specific.

Naturally, humans subjectively judge foreign communication systems. Humans are subject to this attitude because as a social species our species is dependent on processing information through language. It is unimaginable to rationalize a world without symbolic language through articulate speech. Non-human primates, while not being able to use language, are able to communicate in a manner that is acceptable for their evolutionary niche. They have constructed communication behavior that has allowed them to successfully survive and reproduce.

The capabilities of a species, such as the chimpanzee, must be accounted for not only in their biological and anatomical makeup, but also in their behavior. The anatomy of our closest living genetic relative, the chimpanzee, has been of major consideration, specifically in the behavioral characteristics needed to allow for human language. Evidence has shown that the vocal folds in a chimpanzee's throat are too fatty and less muscular than those of humans. Another

contrasting difference is that the neurological pathways between the brain and the vocal folds are less sophisticated in chimpanzees than they are in humans. Structurally, the larynx area is what allows humans to articulate effectively; in chimpanzees, the epiglottis extends much higher in the throat, lessening the range of sounds it can produce. As a result, this biological makeup proves that apes are unable to achieve oral language production. This evidence has caused scientists to rethink the study of chimps and other pongids. The science community is divided on which method of symbolic studies is most effective in studying primates: American Sign Language (ASL) and lexigram approaches are two popular methods of testing and communicating with pongids. The first ASL study, from 1965 to 1972, was established by Allen and Beatrice Gardener, who reared a chimpanzee as they would a child. Washoe the chimp was able to utilize language in a creative manner. In three years, Washoe was able to learn 130 signs, and her behavior shed light on the capabilities of the chimp brain. While there is still skepticism about this experiment, because of the cues that the chimp could have been given, multiple studies have been performed to test the validity of these results. Scientists altered the methods used by creating a double-blind test. A double-blind study uses multiple experimenters to prevent the altering of data.



Fig. 3. Sue Savage-Rumbaugh with Panbanisha---Anna Clopet/Corbis. Photo from: advocacy.britannica.com/blog/advocacy/2007/11/the-language-of-apes/#sthash.f14tqTSK.dpuf, November, 2007.

Researchers, such as Roger Fouts, argue that humans are not the only species to have social and cognitive behaviors. Since the 1960s, science has tested the limits of intelligence in chimpanzees and other non-human primates. Fouts holds that language needs to be redefined in a broader scope, because other species use forms of vocal communication differently. In the most current research studies of our closest living evolutionary cousins, researchers have altered the environment in which these pongids live. Consequently, these experiments have tested the creativity and malleability of the brain in the context of problem solving. In 1999, the University of Georgia used a method of entrenching the pongids in a human-like atmosphere. Panzee, a chimpanzee (*Pan troglodytes*), and Panbanisha, a bonobo (*Pan paniscus*), were raised from six weeks of age and lived within a human society. The study's purpose "was to examine the apes' spontaneous, untutored mastery of the word-lexigrams and to see whether Panzee would come to comprehend human speech" (Rumbaugh *et al.* 2003, 4).

Lexigrams are visual symbols that are keys on a keyboard that light up when pressed by the ape. This research tested the complexity and intelligence of Panzee and her ability to use multiple senses to achieve the task at hand. With the acquired skills that Panzee learned throughout her life, she was given

an opportunity to solve problems ingeniously. In a multiple trial experiment, researchers would take an item, in many cases a fruit, and place it in a brush area a few yards away from Panzee's fenced-in habitat. In order to make this study void of human error, a double-blind experiment was used. One scientist would place the item in a location while another scientist would help Panzee retrieve the item, which was outside of her reach. Panzee achieved success by using multiple forms of communication. First, she displayed her hindquarters as a form of greeting. Next, she went to a keyboard and pointed to the picture of the kiwifruit. Then, she went through a tunnel to the outside cage where she helped direct the scientist to the location of the fruit. One may find this behavior hard to imagine, but the test was replicated many times with a wide variety of items. The normal time frame in which Panzee would inform someone of the object was usually within a twenty-four hour span, but there were cases where she waited days or even weeks.

The mastery of word lexigrams was paramount in Panzee's development of human language comprehension. Otherwise, it would have been impossible for her to identify the food hidden and the materials that hide it. The compilation of gestures, pointing, and the acquisition of vocabulary demonstrated the

highly complex brain functions that pongids possess (Rumbaugh *et al.* 2003, 6). People are simply misinformed when they assert that our species has distinct physical features and cognitive qualities that separates us from the other animals on this planet. The differences in humans from the apes may seem significant, but in the grand scheme of evolution, they are miniscule. These adaptive differences are the result of genetic mutability on the species level. Such genetic changes are a result of humans being altered by the conditions of their environment over millions of years.

Non-human primates, while not having the same biological complexity as our own species, still show evidence that they are capable of vocal communication, complex learning, and invention. How can the science community achieve success in understanding these non-human primates? It comes down to the ability of humans to “talk” to the chimpanzee and other primates. How is it possible to speak to an ape? Briefly, it requires understanding and comprehending primate body language. Rumbaugh proved that chimpanzees do not have the verbal communication skills necessary to understand their own private experiences. Consequentially, Rumbaugh illustrated that non-verbal evidence is as valid and, in most cases, more reliable than merely personal observations (Rumbaugh *et al.* 2003, 56).

As I prepared to start the engine, I noted the distinctive pattern of fresh chimpanzee teeth embossed in what had been the flawless, beautiful black padded cushion atop the dash. With dismay, even disgust, I complained, ‘How did these get here?’ The reply from Sue was, ‘Panzee did it as she came across your seat. You have to watch her!’ My penetrating eyes then focused upon Panzee’s as I pointed to the teeth marks and asked her in earnest, ‘Panzee! Did you do this? I’m really disappointed in you.’ I really didn’t expect to be ‘heard,’ she then took my right hand, opened and held it, palm up, in her left hand. She then brought her closed right hand across her body, opened it, and gently pressed something—which I did not know that she had—into my hand. She never broke her focused attention to my eyes as she did so. Next, she firmly closed my fingers about the item and pressed my closed hand to my chest... Only then did I open my hand and find the item she pressed into my hand, a single flower.

Rumbaugh’s experiences were unique and cannot be explained merely in terms of his interpretation of the situation. It is analogous to a parent speaking to a young child who is unable to articulate his or her feelings. This single event has motivated scientists to come up with an explanation for this social phenomenon. The ability of the brain to instinctively respond and operate is referred to as rational behaviorism. Thus, rational behaviorism includes learning, memory, and selective recollection that are the focus of an advanced organism. Without these complex specializations, animals

are unable to effectively remember past experiences, which could lead to their demise in an ever-changing environment. Behavior is a reaction to stimuli both in the past and present. Without being able to adapt to the dynamic world around them, there would be no living organisms present on the earth.

Traditional behaviorism, grounded in the Cartesian philosophy, advocated that animals were merely walking biological machines. However, this fails to take into account the social and decision making processes of organism. Even Darwin held that all organisms are the result of the survival of the fittest, based on the biological makeup of creatures. Besides the shift to acknowledging the influence of genetic makeup, the psychological function of “mental operations” is also vital to the survival of not only an organism, but also the species. While all species are diverse, this does not mean that humans are not similar to other animals. All present life forms have evolved from one common organic source billions of years ago. The main point is that all organisms are similar in that they experience the natural world around them. If humans are unable to creatively adjust to environmental changes, then they will become extinct. As a consequence of this comparative research, scientists have a particular interest in studying the great apes: “thus, notably in the great apes and human children, the brain is competent to organize predictions that are valid both within contexts and between contexts [...] Thinking, reasoning, insight, organization, and prediction somehow benefit from coordinated efforts to adapt” (Rumbaugh *et al.* 2003, 286). Humans are not the only species to have the potential for psychological intelligence through vocal communication. All primates share an underlying similarity; they have a natural inclination to control their environment in order to survive and reproduce.

In the event of teaching non-human primates sign language or the ability to comprehend and utilize lexigrams, experiments demonstrate the already-known claim that pongids and other non-human primates are subject to following an ego-centered ACS perspective. Even in the case of Kanzi: “the Einstein of apes, [all that any ape] ever talks about are things like where they want to go, what they want (or want you) to do, or what they’d like to eat” (Bickerton 2009, 78). Reflective, past-oriented, and future-oriented information is non-existent in non-human primates; animal communication systems are primarily manipulative in motivation. In no cases have scientists found behaviors remotely similar to proto-language. What allows for apes to comprehend and spontaneously put signs together is held to be that “the presentation of novel signs [by humans] to apes, coupled with the presentation of physical objects, caused certain neurons to fire simultaneously [in the apes] that had never fired simultaneously before” (Bickerton 2009 82). With the repeated exposures to these signs, the pongids were able to associate signs with meanings. However, if it were not for the intervention of the human species, then this association would never have happened because the apes’ natural environments do not cause such stimulation.

THE EMERGENCE OF LANGUAGE FROM PRIMATE COMMUNICATION

In order for language to emerge out of an animal communication system, there would have to be an already “existing behavior that could be taken and twisted and refined into an appropriated medium,” and then this behavior is directly used to benefit fitness (Bickerton 2009, 21). There has to be a shift from contextual situations to the formation of individual meaningful units. It is all based on a cognitive process. Non-human species use categorical sorting, while humans have concepts: “Categories sort things into classes but can only be evoked by physical evidence that members of those classes are present. Concepts sort things into classes but can in addition be evoked by other concepts even in the absence of members of any of the classes concerned” (Bickerton 2009, 210). The isolation of individual objects in the world, not only in the present time, but also by abstractly discussing objects from the past, present, and future occasions, provides a cross-over from animal communication systems to human symbolic language. Non-human primates are only able to vocalize situations that occur in the present, not in past or future: “Each utterance of an ACS unit is tied to whatever is going on in the immediate vicinity right at the moment. Words, on the contrary, are relatively seldom used about what’s going on before our eyes” (Bickerton 2009, 22). The beautiful thing about language is that one can exchange an infinite amount of ideas without having any constraints in time and space. Furthermore, while language is beneficial to *Homo sapiens sapiens*, this does not entail that language is a part of a progressive development that all species will eventually achieve. The only reason that humans formulated language was because “social interaction must have been the pressure that selected for language” (Bickerton 2009, 26). What were the conditions that allowed for language to surface in humans? It was a result of uniqueness, environment, credibility, and selfishness.

Uniqueness because language is only present in humans. If this form of communication were present in other species, then scientists, through comparative methods, would pinpoint its distinct feature. Science is left with the challenging task of interpreting what allowed for language to develop so successfully in humans, since research has no trace of language in other organisms. Proto-language had to form in a logical manner based on the contextual setting of a changing ecological environment. It had to have emerged in an environment during the Pliocene in central East Africa: “Our remote ancestors may not have been much smarter than their ape cousins, but they lived in dramatically different environments and made their living in completely different ways” (Bickerton 2009, 30).

Credibility entails that the emergence of linguistic units and their accepted meanings follow an adaptive, continued existence, and reproductive sequence; without these three factors, language would have never developed. The last condition that had to be fulfilled was that the emergence of language had to account for selfishness. Subsequently, a theory of language

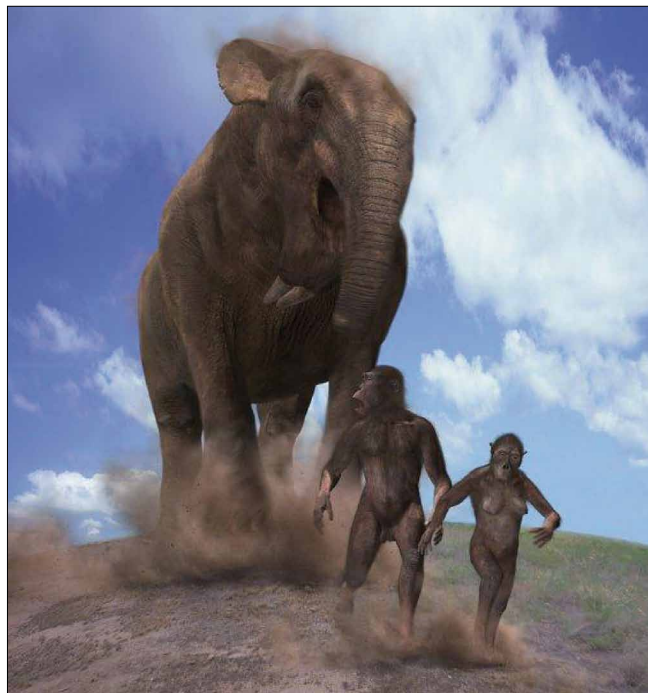


Fig. 4. *Australopithecus africanus* running From an Angry Deinotherium. Photo from: walkingwithdinosaurs.wikia.com/wiki/File:038.jpg, April, 2011.

can either be interpreted from Richard Dawkins’ perspective, in which selfish genes allowed for the advancement of an organism’s offspring, or from the belief in David Bickerton’s “group selection.” The latter theory takes into account that individuals sacrifice for the betterment of a group, in which “the speaker derived (at least!) as much benefit from them as the hearer did” (Bickerton 2009, 32). However, both thinkers contribute to the speculation on the origin of language. But what allowed for a proto-language to form in early hominids? In the case of our early ancestors, one has to put into perspective three primary guidelines: the habitat, nourishment, and the means of obtaining food. Early hominids lived in open woodlands and on grassy savannahs; this environment is comparable with the landscape that the baboons of today inhabit. Australopithecines were “neither a bold hunter nor a vicious cannibal, but a weak and furtive scavenger, nervously looking over its shoulder in fear” (Smith 2009, 23). Predation led australopithecines to be subjected to living off the bottom of the scavenging food chain. Bone marrow provided for sustenance and nutrition. The issue is that the fat and caloric value in a bone was not of large quantity, so it took lots of bones to satisfy hunger. Creativity was fundamental in the development of language; australopithecines used primitive tools such as flint in order to cut through the thick leathery hides of megafauna. In order to survive on the savannah, these large animals capitalized on their size for the ongoing survival of their species: “The size niche exists, permanently, within an order, simply because if you’re bigger than anything else around, you’re virtually invulnerable to attack” (Bickerton 2009, 122). Hominids were able to take the opportunity to



Fig. 5. *Elephas Recki* Fossil Rib with Cut Marks. Image Courtesy of Chip Clark, Smithsonian Institution. Photo from: humanorigins.si.edu/research/east-african-research/olorgesailie, October, 2014.

utilize hand weapons, which gave them a competitive advantage to access carcasses of large megafauna, whose skin was impenetrable to predators' teeth.

Prior to australopithecines using tools, scavengers waited for bacteria to break down the animals hide; gases from inside expanded to rupture holes in this thick skin. How do we know this is plausible? Dominguez-Rodrigo claimed that if hominids were denied access to these large mammal carcasses, then the "midshafts of upper and intermediate limb bones would already be defleshed when accessed by hominids" (Dominguez-Rodrigo 2005, 118). Through the forensic investigation of early hominid sites, in contact with megafauna, researchers have found that, due to indentation marks left on bone, there was a shift in this period in which cut marks impacted bone before non-hominid teeth marks. This evidence demonstrates that the australopithecines were arriving at scavenging sites and retrieving meat before other predators arrived.

Optimal foraging theory, under these conditions, allows for emergence of a proto-language. Without collective effort to fend off predators, while members of a group hacked off pieces of meat from a carcass, it would be impossible: "exchanging information about the scavenging of megafauna is one case that overcame this problem. If I don't tell others about the dead deinotherium, there's no benefit. I can't exploit it for myself alone" (Bickerton 2009, 168).

In order to rally other members of a group together, one must entice them with the belief that they would be able to receive compensation for their efforts. What allowed com-

munication to expand from simply iconic representations of animal's sounds was hominid creativity and ingenuity. This cultural stimulus tapped into an untapped potential never expressed before. These factors were needed in order for an early form of proto-language and later language to break away from an animal communication system, thereby expanding communication into an informative, symbolic, and displaced system.

The evolutionary development of the brain was due to a selective process. In the early stages of emergence, hominids feared larger prey. Selective scavenging allowed for a constructive niche, which allowed for genetic development in the realm of the reconfiguration and complexity of the brain. As a result, hominids were able to outsmart the predators that they feared. Through coalitionary aggression, hominids banded together in highly organized ways, using proto-language to augment their limitations in size; they also improved on their exploits through memories of past conquests and plans for future success.

For a niche to be actively constructed, a species must develop an adaptive behavior toward their environment, and in turn the niche helps to evolve the species: "conventionalizations of even the earliest words were never passed down by the genes. Rather, they had to be learned anew by the members of each generation" (Bickerton 2009, 219). This incorporates the major importance of comprehension (Burling 2005, 21). For a species to be able to specialize in communication, it has to be able to understand the meaning behind arbitrary signs.



Fig. 6. Nim Chimpski Signing. Photo from: theguardian.com/film/movie/142243/project-nim.

FINAL REMARKS

Niche construction theory is the proper framework for examining language origins. Science has already proven that humans share a significantly similar genetic makeup with the great apes. So there must be a niche or multiple niches that one may construct in which early hominids evolved after their separation from fossil great apes. Bickerton stated that humans have “at least six distinct niches: a terrestrial omnivore niche, a low-end scavenging niche, a high-end scavenging niche, a hunting and gathering niche, a herding niche and an agricultural niche” (Bickerton 2009, 109). Through experience, this would not be possible if genetic determinism were in place, because then everything would be predetermined in nature: “When environments change, some members of a species often survive, and they can do this only by doing things that their genetic equipment allows, but that they had never done before, because they’d never had to do such things” (Bickerton 2009, 84). In order to survive, a species has to have ingenuity in using unorthodox methods, but in the confines of their potentiality. The ability for hominids to develop a proto-language is due to selective pressures that allowed for this specific behavioral development. A large misconception people have about genetics is the thought that genes mandate behaviors, but this is false. Genes simply make behaviors possible: “Circumstances will determine how far, if at all, those possibilities are realize[d]” (Bickerton 2009, 115). In addition,

it is important to emphasize that both Dawkins theory about the selfish gene and Bickerton’s theory of group selection are both significant in understanding evolution. It is the interplay and dialectical relationship between the evolutionary desires for individual survival versus collectivism which allowed for the emergence of modern humans with symbolic language as articulate speech.

Determining the capabilities of early hominids is vital to understanding the similarities humans share with other organisms. Cross-collaborative efforts to answer the mysteries of our species are necessary. Most recently, interdisciplinary efforts in the field of biological and linguistic anthropology have led to the discovery of ossicle bones in early hominid species: both *Australopithecus afarensis* and *Homo habilis* in cave sites at Swartkrans and Sterkfontein. This discovery is significant, because these small bones aid in the transmission of sounds and allow for more accurate hearing. As a result, researchers have more evidence to promote the hypothesis that language was able to develop in these species because of this anatomical development. Furthermore, primatologists have historically challenge ideas about the capabilities of non-human primates. Sometimes to a point where the ethical boundaries of experimentation are pushed. In particular, Project Nim (1973-2010) showed that Nim Chimpski, a chimpanzee, was raised as a child and was taught sign language over a course of years. However, over the course of his development, researchers from Columbia University determined that Nim could

not grasp the rules of grammar. While this investigation was groundbreaking, it has also been criticized by contemporaries for its unorthodox methods and inhumane treatment of its subject. Nim was a wild animal and the researchers failed to take this into account when their subject became impossible to manage after he became a full grown adult male chimpanzee. At present, this experiment is the only spontaneous animal sign language test openly available to the public.

Most recently, Charles Yang, a professor of linguistics at the University of Pennsylvania, applied predictive models to determine if a two-year-old child was able to distinguish rules of grammar or simply imitate their parents. Yang tested the competence of two-year-old children and Nim's ability to properly use indirect and direct articles. Charles Yang's research concluded that true language learning is a uniquely human trait, and that it is present very early in development. These examples are current endeavors in the field of linguistic anthropology and with more empirical evidence, anthropologists will solve those issues that still perplex the understanding of and appreciation for the evolution of language.

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The usage of social networks by university students

(A survey of Facebook use patterns among young people)

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VYUŽITÍ SOCIÁLNÍCH SÍTÍ UNIVERZITNÍMI STUDENTY

(JAK MLADÍ LIDÉ POUŽÍVAJÍ FACEBOOK)

ABSTRAKT Internetové sociální sítě (Facebook, MySpace, LinkedIn, Twitter, ...) se staly skutečně významným jevem mezilidské komunikace a mají výrazný vliv na to, jakým způsobem mezi sebou lidé udržují spojení. V současnosti užívají sociální sítě milióny mladých lidí. Mezi nejaktivnější uživatele patří mládež ve věku 13-19 let. Z recentních studií vyplývá, že mládež tráví značnou část dne interakcemi na sociálních médiích a je třeba hledat fundované odpovědi na palčivou otázku vlivu sociálních sítí na vývoj mladých lidí. Jen málo je známo o základních údajích – v jaké míře, proč a jak mládež tyto sítě využívá. V rámci této studie se 561 univerzitních studentů různých národností zúčastnilo průzkumu, který pomáhá osvětlit aktivity mladých lidí v těchto internetových komunitách. Naše zjištění naznačují, že aktivní působení na sociálních sítích je pro tuto novou generaci zcela typické a že Facebook je nejčastěji využíván k udržení kontaktu, udržení se ve středu dění. Dále byl zjištěn silný vztah mezi užíváním Facebooku a závislostí na udržení sociálního kapitálu.

KLÍČOVÁ SLOVA Sociální sítě; Facebook; univerzitní studenti; online průzkum; mladí dospělí

ABSTRACT Online social networks (Facebook, MySpace, LinkedIn, Twitter, ...) have become truly significant new phenomena in human communication and interaction patterns and may have a profound impact in the way people communicate and connect with each other. Millions of contemporary young adults use social networking sites. Teenagers are among the most prolific users of social network sites (SNS). Emerging studies find that youth spend a considerable amount of time in their daily life interacting through social media. Subsequently, questions and controversies emerge about the effects SNS have on adolescent development. Little is known about how much, why, and how they use these sites. In this study, 561 university students of different nationalities completed a survey that helps clarify these questions that surround youth participation in these online communities. Our findings suggest that social networks are the *modus operandi* of the new generation and that Facebook is mostly used to keep up to date. In addition, a strong connection was found between Facebook use and the addiction to maintaining social capital.

KEY WORDS Social networks; Facebook; university students; online survey; young adults

INTRODUCTION

The growth and public popularity of web applications have created a new world of collaboration and communication. More than a billion individuals around the world are connected. Facebook, MySpace, LinkedIn, Instagram, Twitter, Friendster, Live Journal and other similar online social networking sites (SNS) provide online spaces where individuals

can create a profile and connect that profile to others thus creating a personal network (Cheung – Lee 2010, 24-30). From all the SNS, Facebook was chosen in this study. Worldwide, there are over 1.35 billion monthly active Facebook users and 864 million people log onto Facebook daily (Noyes 2014, Boyd 2007, 119-142). Therefore, we believe that Facebook is appropriate for the current study as it is the most popular online social networking site among university stu-

dents (Cheung et al. 2011, 1337-1343). In this social network, privacy settings can be used to control access to personal profiles, in such a way that only designated friends and users within shared networks can be provided access to profiles. For those users that do not employ privacy settings, however, profiles are accessible to any Facebook member. Once a member, users can search for friends (these can be actual friends, acquaintances or even strangers) on Facebook, and add them to their "friends list". Users can also upload photos, describe interests, work, education, history, relationships, personal stories, schedules and more. Users can interact with one another. Each Facebook profile has an email inbox, where other users can contact them and choose to send them a message. These messages appear on the profile page. In addition, profiles include recent activities, and a "wall" where other users can post messages and attach links to other sites, videos, or photos. Groups can be created on Facebook, and users may be invited to join. Overall, the system provides many means for communicating with others (Nosko et al. 2010, 406-418). Therefore, every 60 seconds on Facebook: 510 comments are posted, 293,000 statuses are updated, and 136,000 photos are uploaded (Noyes 2014).

Participation and continuance in online social networks represents a new social phenomenon that depends largely on the interactions with other users in a personal network. Thus, understanding why students use online social networking sites is crucial for the academic community, as this new communication platform creates an online social space where university students can build and maintain social capital with others. The study described here explores several issues related to faculty and student acceptance and use of one such SNS: the community-building resource called Facebook. The purpose of this study was to provide descriptive information about the use of social networking sites by university students. For this purpose, crucial questions were made to understand why university students use these sites, how they interact on these sites, how much time they spend on them, and most of all, what they actually think about these sites.

THEORETICAL BACKGROUND

Development considerations and Internet use

The Internet is defined as the worldwide interconnection of individual networks operated by government, industry, academia, and private parties. Originally the Internet served to interconnect laboratories engaged in government research, and since 1994 it has been expanded to serve millions of users and a multitude of purposes in all parts of the world. In a matter of very few years, the Internet consolidated itself as a very powerful platform that has changed forever the way we communicate. The Internet, as no other communication medium, has given "globalized" dimension to the world. Internet has become the universal source of information for millions of people, at home, at school, and at work.

Internet use among young adults has grown exponentially in the last 10 years (Becker 2000, 44-75) and the ever-increasing use of the Internet has a salient impact of information technology on students' lives (Wang 2001, 919-938, Jones 2002). Students are heavy users of the Internet compared to the general population. Use of the Internet is a part of college and university students' daily routine, in part because they have grown up with computers (Jones 2002). The internet use provides an important backdrop for the social, emotional, and cognitive development of youth, accounting for a large part of their time. One type of online application that has grown rapidly in prevalence and popularity in recent years is social networking on the Internet (Rideout – Roberts 2010).

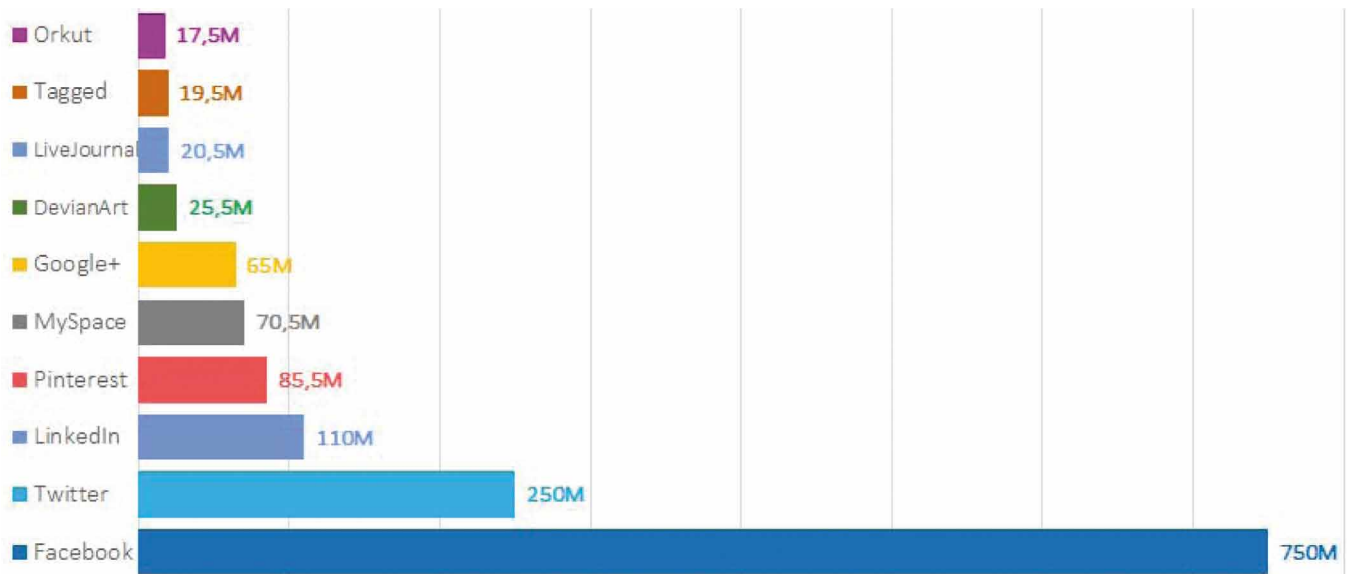
Increasing day by day, college and university students are using the Internet as the most powerful resource when communicating with each other (Kandell 2009, D'Esposito – Gardner 1999, 456-461). Thus social networking sites have captured the interest of many adolescents and young adults. Spending time on SNS appears to be part of most young adults' daily activities. Like personal websites and instant messaging, social networking sites provide an easy, accessible way to interact with peers and gather feedback. These opportunities may be particularly significant since peers are readily available online at almost any time, and the tools provided make communication easy to accomplish.

Why young adults use social networking sites

Keeping up to date is the most important reason. Surveys of college students and young adults with social networking site memberships reveal that youth primarily use these sites to stay in touch with friends they see often and those whom they rarely see (Lenhart 2007, Wiley – Sisson 2006). In addition, about a half of teens use social networking sites to make new friends (Lenhart 2007) and about a half of college students use them to let others "know about me" (Wiley – Sisson 2006). Social networking sites are designed to foster social interaction in a virtual environment. In general, communication is facilitated through information posted in the profile (i.e., the user's personal page), which often includes a photograph of the member and personal information describing his/her interests, both of which provide information about one's identity. Such interactions can potentially address many concerns of adolescence and emerging adulthood, such as the need for friendship and peer feedback (Pempek et al. 2009, 227-238).

How youth use social networking sites

Limited research is available about how college students and young adults interact on social networking sites. Online sites are often considered innovative and different from traditional media such as television, film, and radio because they allow direct interaction with others. When a college student becomes a member of a site like Facebook they first create a personal profile. These profiles display information such as one's name, relationship status, occupation, photos, videos,



Graph 1. 2013 Top 10 popular social networks that show which social media platforms get the most number of visits every month, on a scale of millions.

religion, ethnicity, and personal interests. SNS facilitate interaction with others and feedback from others, as well as input from the user in creating a profile. However, they also make it easy for users to lurk while looking at others' content. In this study, the interest was how users socially interact specifically on Facebook.

A recent study by Pempek, Yermolayeva & Calvert in 2009 revealed that regardless of how busy college students are and whether they have the time to engage in public life or not, there are huge structural and social barriers to them doing so. Therefore, a social network such as Facebook in particular, was a part of their daily life and many other studies have reached similar conclusions.

Study purpose and research questions

The study reported here was designed to gather preliminary evidence of the current adoption of SNS's such as Facebook by students. The study proposed the following questions:

- Q1. How much time students spend on average in social networks;
- Q2. How and what they think about social networks;
- Q3. What importance Facebook friends have for these young adults;
- Q4. What the college students' perspective is about the negative factors associated with these sites;
- Q5. If students believe that relationships can be formed through social networks;
- Q6. What proportion of students consider SNS's an addiction;

RESEARCH METHOD

Facebook, an online social networking site (<http://facebook.com>), was used in this study to examine how university students interact on these sites, how much time they spend on them and students point of view in relation to SNS. In 2009, Facebook surpassed its competitor MySpace, which had a longer history than Facebook, and has become the most popular online social network and because of it, it's a good example of SNS for the new generation online, which is highly interactive.

Sample profile

To fulfill the goals of this project, a web-based survey was conducted during November 2014 to a large group of university students of different nationalities. The cultural and geographical distinctiveness of our participants ensured a survey of a diverse and representative population of university students. Only students who had a Facebook account participated in this study. Data was collected from university students because research suggests that they form suitable samples for studies involving SNS's because they tend to be frequent users (Lenhart 2007, Wiley – Sisson 2006). The participation was voluntary and anonymous and the assessments typically lasted 3-5 minutes. All participants had a Facebook account and a total of 561 useful online questionnaires were collected in this study. Participants were composed of 164 males (29,3%) and 397 females (70,7%) with an average age of 22.

Data collection

A web-based survey composed of 24 questions was made in

three different languages: Portuguese, English and Czech. Questionnaires were posted on Facebook to make sure that only students who had an account on Facebook could respond. The questionnaire was put in English in two groups of students on Erasmus Facebook, each with 1000 members; the questionnaire in Portuguese was put into several groups of Portuguese faculties; and finally, the questionnaire in Czech, was posted in a group at a university in the Czech Republic: Masaryk University, a group that has more than 6700 members. When the URL of the questionnaire was posted in these groups, the students were told that this study was being performed and that its conclusions would be drawn from the collected responses.

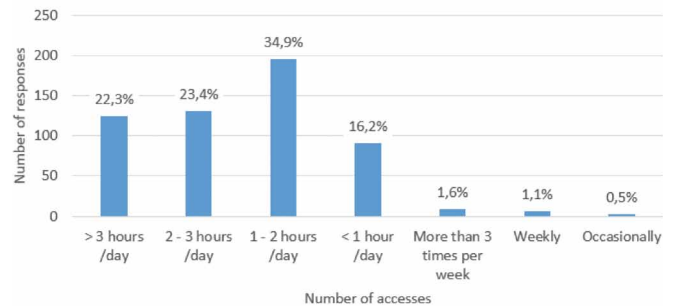
Enquiries

In the online survey, we firstly collected demographic information (age, sex and nationality). The questions that followed were collected to understand how much time (measured in hours) the participants spend on average in social networks and how students use their personal network page, i.e. 1) if they add people whom they don't know on to their social networks, 2) if students define in the privacy options about who can access their profile, 3) if they share videos, pictures or comments that they would be embarrassed if their parents or a teacher saw them and 4) if they have held meetings with virtual friends. These questions were asked basically to know 5) for what purpose social networks are used by college students and 6) where they access social networks and 7) if college students access social networks during classes. Finally, questions were made to understand what the general opinion about social networks is and 8) if students think that social networking can bring positive changes in school education methods and 9) if they think students have the knowledge of how much time they spend on social networks and 10) if too much importance is given to SNS, 11) if our lives would be better without the social networks and 12) if concrete relationships can be formed through social networks, and 13) which negative factors students see in social networking.

DATA ANALYSIS

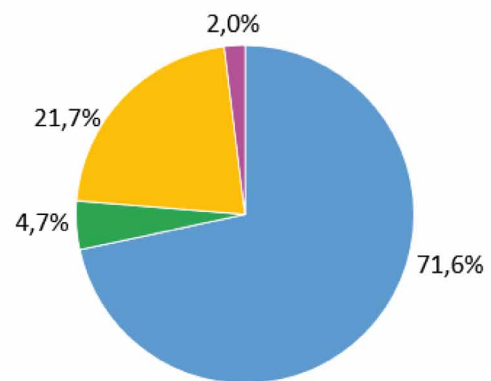
In all, the study included 561 replies, none of which was discarded. All the questionnaires were considered as to be able to submit the inquiry, all the replies had to be given, therefore, all answers were analysed. Since the objective of the study is to analyze young adults in relation to social networks in a general way we performed an invariable analysis, i.e., from the information contained in the questionnaires. The first questions were related to demographic data: gender, age and nationality were inquired about. Regarding gender of the enquired, 164 (29,3%) of the responses correspond to male and 379 (70,7%) to female. In relation to nationality, 32 different nationalities were registered where the vast majority of the enquired belonged to Portugal and the Czech Republic.

When asked about the amount of time students spent on social networks, on average, the overwhelming majority of the enquired (96,8%) access social networks daily. In Graph 2, the percentage of the amount of time students spend on these sites is shown. From the results, it is easily observed that social networks are more than integrated in students' lives. The majority of the students state that they spend 1 to 2 hours on these sites.



Graph 2. Time spent on average in social networks.

In regards to the place of accessing social networks, home is the place mostly chosen with 71,6% of students opting for this answer, and the second most frequent place of access is on mobile devices (Graph 3).



Graph 3. Place of access to social networks.

In regards of privacy concerns towards profile visibility, an overwhelming majority of users (90,0%) states that their profile is private, that is, they define the privacy settings on who can access their profile information, which demonstrates that young people care enough to change the default privacy preferences on Facebook.

As for friendships, various questions were asked: college students were asked if they add people they do not know onto social networks, 76,8% replied no. When asked about the

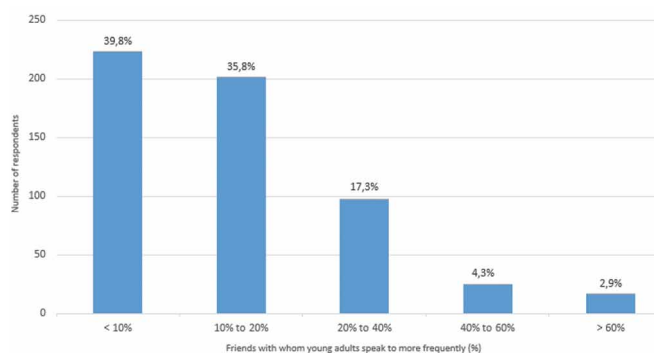
number of friends they have, 15,3% have less than 150 friends, almost half of the students (49,0%) reported having between 150 and 500 friends and 37,5% reported that they have more than 500 friends.

To understand the importance the enquired attribute to the number of friends they have, they were also questioned about this present in the scale in Table 1. As one can see, 72,4% of the students questioned stated that no importance is given to the number of friends they have in social networks, 22,1% referred that they give little importance, 4,6% give some importance and only 0,9% indicate that much importance is given to the amount of the friends they have.

	Number of answers	Ratio
Much importance	5	0,9%
Some importance	26	4,6%
Very little importance	124	22,1%
No importance	406	72,4%

Table 1. Importance attributed to the number of friends on social networks.

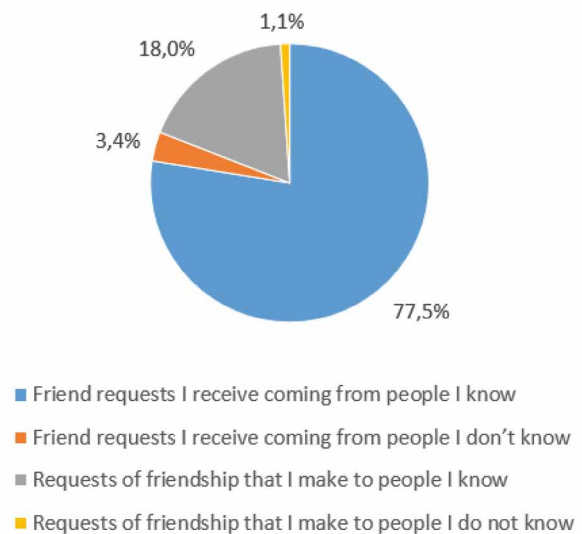
These students were also questioned on how many friends they speak to on Facebook more regularly on a percentage basis, 39,8% of students questioned stated that they speak to less than 10% of the total number of friends they have followed by 35,8% who replied that they constantly communicate with 10 to 20% of their friends (Graph 4).



Graph 4. Friends with whom young adults (students) speak to more frequently (%).

A question was subsequently asked from where these students' friendships came from, in which 435 (77,5%) of the students indicate that the majority of the friends they have on Facebook are the result of friend requests they receive, coming from people they know, and only a small minority of students inquired, 18,0% stated that the result of their friendships come from friendship requests they make to people they know. With this data we may conclude that the students at this age do not spend time on social networks looking forward to making new friends but much more frequently receiving friendships, being consistent with the data presented above,

which states that our sample does not particularly give much importance to the amount of friends they have on Facebook (Graph 5).

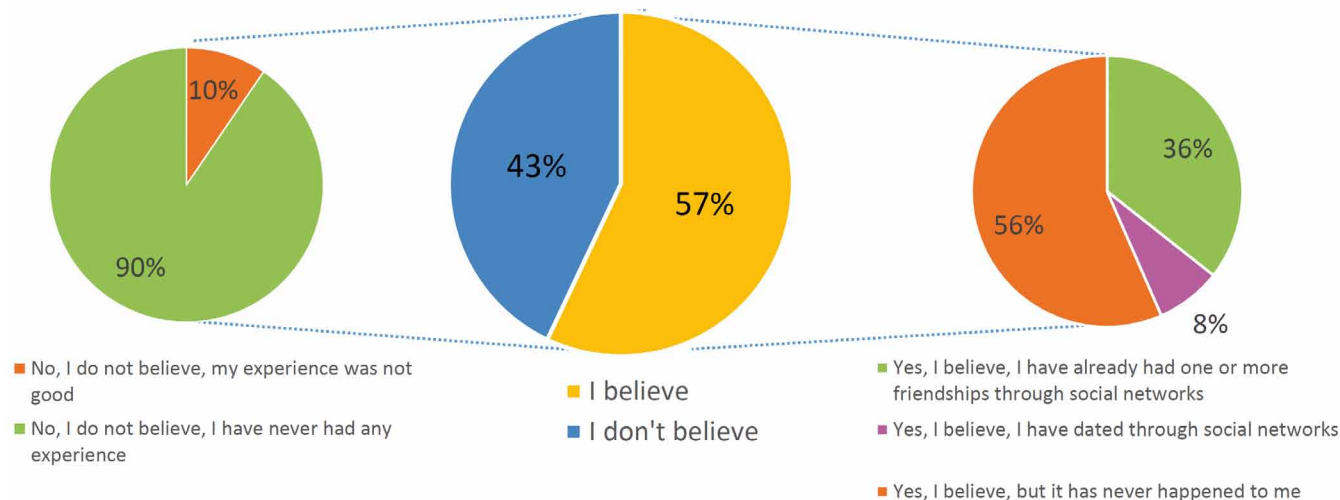


Graph 5. Friendships in social networks resulting from friendship requests (%).

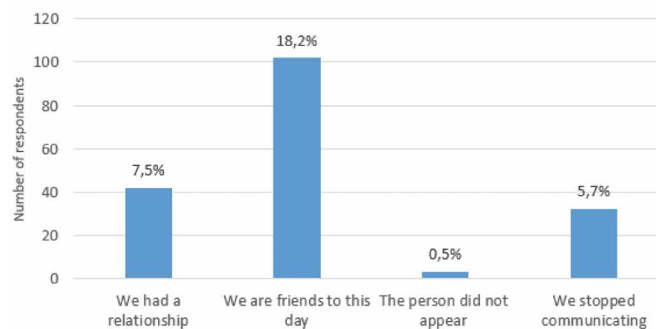
When questioned about the influence of social networks in concrete relationships (Graph 6), 57,0% refer that they believe that these relationships can be formed through social networks, although 56,6% of these students have never had any experience of this kind, against 43,4% that have already had at least one concrete relationship formed through social networks: 114 students (35,6%) have already built one or more friends through social networks and 25 students (7,8%) have already dated through social networks. Of the 43,0% enquired who do not believe that concrete relationships can be formed through social networks, 218 (90,5%) affirm that they have never had this kind of experience, and 23 students (9,5%) report having had a negative experience. In short, through the following chart we can see that the total number of enquired students, regardless of whether they believe or not a solid relationship can be formed through social networks, 28,8% have already built friendships or loving relationships through social networks.

Nowadays, there are many meetings held with virtual friends. When questioned on this subject, 68,1% report that they have never held such a meeting, against the 31,9% that have already held such a meeting. As to what happened after this meeting with these virtual friends, 18,2% of the students affirm they are friends to this day, 7,5% reported having had a relationship, 5,7% say that they stopped communicating with each other and only 0,5% refer that the person did not appear at the meeting (Graph 7).

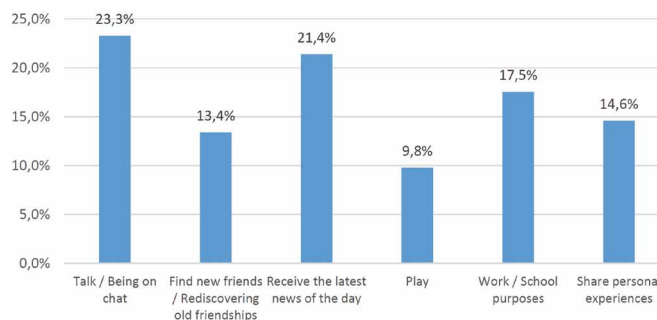
The enquired were asked to place in a preference order what they mostly do on social networks, to understand the purpose of why these enquired mostly use these sites. In the Graph 8, it is possible to verify the options of the answers present in



Graph 6. Do you believe that solid relationships can be formed through social networks?



Graph 7. What happened after the meeting with these virtual friends?

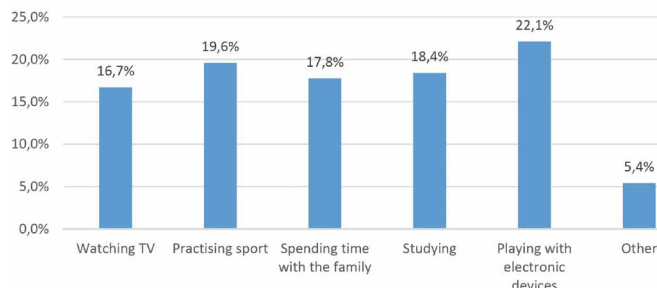


Graph 8. For what purposes are social networks used more?

the enquiry and the percentages associated to each activity. It seems that the reason of why students use these social networks more is to receive the latest news of the day and to talk/be on chat; unlike the games in case of which it is clear that it is not the reason why students dedicate time to these social networks. The data reaffirm the importance that the students place on always being up to date with the latest news and see what their friends post on their news feeds. Maintaining a personal relationship is also part of these students' everyday life, even because establishing and maintaining a friendship is part of personal growth and development that occurs in the age group of our sample.

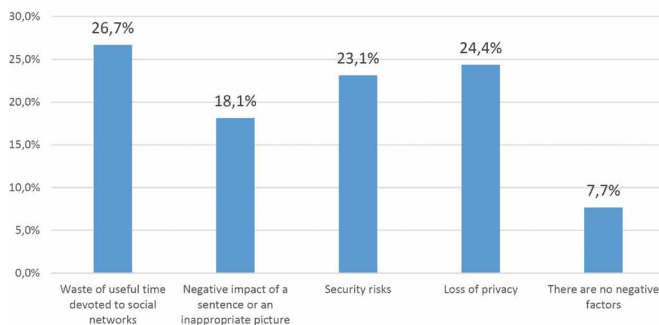
When asked if students were not on social networks, what they think they would most likely be doing at that time; playing with electronic devices and practicing sports are the activities that were chosen. This question was made in a way that students would put their choices on a preferential basis in response to predefined activities in the questionnaire in relation to what they think they would be doing.

On a scale of 0 to 100%, looking at Graph 9, one verifies that students would be playing with electronic devices and this indicates that even if students were not on Facebook, the use of technology would be present all the same in their lives and their second chosen answer was to do sport, and then study.



Graph 9. If social networks did not exist, what would probably young adults be doing during the time they spend on social networking?

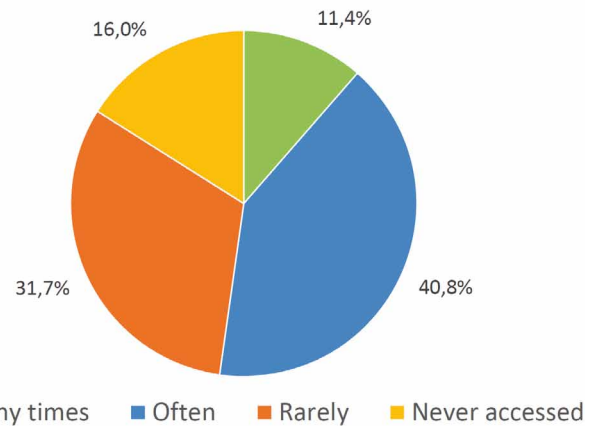
In relation to the negative factors associated with social networks, as Graph 10 demonstrates, 26,7% of the enquired students believe that the most negative factor is the loss of time devoted to social networks, followed by 23,1% who believe that the second most negative factor are the security risks, against 7,7% who believe that there are no negative factors associated with social networks.



Graph 10. What are the most negative factors that you associate with social networks?

An interesting but very little explored question was raised in this survey: students were asked if they shared videos, photos or comments in which they would be ashamed of if they were seen, for example, by their parents or a teacher. The study concluded that almost 10% of students (54) that share videos, photos or comments would be ashamed against the 90,4% of students that are not ashamed of what they share on social networks. When asked about the performance of different activities at the same time in which they are using the social networks (tasks such as working, listening to music studying, watching TV), the overwhelming majority of the enquired, 91,4% claim having this practice. This proves that this generation of students does several tasks at the same time and in different environments, they have a flexible and very skilled mind to adapt to the various media. Another question asked was about the access to social networking during classes where 83,9% admit doing so. They were also questioned if they do it rarely, often or frequently: 11,4% stated that they access it frequently, 40,8% admit that they access it often, 31,7% access it rarely and 16,0% have never done it. The following Graph 11 illustrates the obtained replies.

The last questions of the survey were related to the opinion students have about social networks: 62,0% of students believe that social networking can bring positive changes in teaching methods used at schools against 38,0% who do not believe so. The overwhelming majority of the enquired (96,6%) say that young adults give too much importance to social networks whereas 92,9% of the enquired believe that social networks such as Facebook, Instagram, twitter, etc. have become an addiction for most students. To be able to finally conclude what students' opinion in relation to social networks, they were asked whether they were aware of how much time they spend on social networking, and surprisingly, 492 students (87,7%)



Graph 11. Do students access social networks during classes?

answered that they believe that students have no concept of how long they spend on social networking against 69 students (12,3%) that say they think students have this notion. To complete the questionnaire, the last question was: In your opinion, would our lives be better without social networks? 63,1% replied that their lives would not be better, and 36,9% answered yes, that our lives would be better without the social networks.

DISCUSSION AND CONCLUSION

The present study succeeded in exploring students' perceptions of SNS's; their experiences when interacting with these sites, how much time young adults spend using SNS Facebook and more importantly, their views about the role of SNS's in their lives.

The answers leave no room for doubt; the data collected suggest that social networks are the *modus operandi* of the new generation. Facebook is part of their everyday experiences, with young adults reporting to approximately 1 to 2 hours of Facebook use each day. Our participants overwhelmingly used Facebook to receive the latest news of the day and to keep in touch with friends. Therefore, online SNS's may play a role differently to that described in early literature on virtual communities. Online interactions do not necessarily remove people from their offline world but may indeed be used to support relationships and keep people in contact, even when life changes move them away from each other. Our findings suggest that Facebook use can help students accumulate and maintain bridging social capital.

Another question focused on reasons why young adults use Facebook. 'Keeping up to date' is the most important reason. While friendships, romantic relationships, and ideology remain key facets of adolescent development, it is fitting in that plays an important role in students' expressions of who they are. Consistent with previous research (Valkenburg et al.

2005, 383-402), one way that young adults use online applications is to facilitate social relationships. Facebook is clearly a peer-to-peer communication network. From the data collected, it's possible to verify that our young adult sample does not use Facebook to play or to make new friends, which differs from findings with teens in previous studies, which refers that about half of college students use social networking sites to make new friends. These findings suggest that youth search for new friends on social networking sites more than young adults do.

Another topic was studied to try to understand what young adults think about SNS's when connected to school purposes. 62,0% of our sample state that social network can bring positive changes in methods applied to school education and 88,6% access Facebook during classes which shows that at an applied level, the popularity of social networking applications could make them a powerful cognitive tool if adapted to academic pursuits and career goals. For example, colleges and universities could take advantage of the new ways that students are communicating with one another. Although interactive educational options such as Blackboard exist, social networking sites are rarely used for academic purposes. Websites could be established where students could interact on an academically-focused networking site, with students posting on walls and professors joining in on these discussions. Profiles could include favorite courses and career goals. Alumni could visit these sites to help current students find appropriate internships, job placements, and information about post-graduate academic and job experiences. These kinds of experiences might be engaging for students and open new ways of academically-oriented interactions where professors and alumni could discover more about the students' interests, and students, in turn, might express and develop more intellectual facets of their lives. In fact, as the rapid evolution in societal perceptions and uses of the Internet has shown in the last decade, attitudes toward technologies tend to change over time, so maybe methods applied to school education will change in this direction.

Returning to our original research questions, we can definitively state that there is a positive relationship between Facebook use and the addiction to maintaining social capital. Although we cannot say which precedes the other, Facebook appears to have become the addiction of the new generation and young adults seem to have the knowledge of that fact. Indeed, more than 96% of the inquiries state that youth gives too much importance to social networks and more than 90% admits thinking that social networks have become an addiction although 87% consider that young adults don't really have the notion about how much time they spend on these sites. Putting it all together, these results indicate that Facebook use has been integrated into the daily lives of young adults.

It is important to acknowledge, however, that the methodology, as applied in this study, although generally sound, has some limitations. First, by some measures, the sample size might be considered relatively small. Secondly, this study assesses a specific group, primarily students attending university,

who may differ from other Internet users in important ways, such as their easy access to Internet connections. Thirdly, only one type of social networking site was assessed here. It may be that other sites are used in different ways, particularly since Facebook originated as a student site and has attracted many student-age people. The developmental issues that young adults bring to bear during their university years may well be different from those of younger students and non-university young adults. Finally, a more typical diary research approach may have provided a broader measure of Facebook time use (Anderson et al. 1985, 1345-1357). Such a method was not used in the present study because some students appear to use Facebook for short periods of time several times a day, which would make an accurate minute-by-minute measure both tedious and difficult to answer accurately. Nevertheless, the groups yielded valuable insight and met the study's objectives of determining the importance of researching these issues and of providing a foundation for further study.

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Hrozba rozvodem ve starém Egyptě

(Pražské hieratické ostrakon se soukromým dopisem)

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A THREAT WITH DIVORCE IN ANCIENT EGYPT
(PRAGUE HIERATIC OSTRACON WITH A PRIVATE LETTER)

ABSTRACT An interesting Ramesside (probably from the reign of Seti II, c. 1201–1196 BCE) hieratic ostrakon (P 2027: Figs. 1–3) with a private letter arranged in 11 lines is deposited in the National Museum – Náprstek Museum of Asian, African and American Cultures in Prague. The text contains a letter addressed by a woman named Takhentyshepset to her sister Iyet to add emmer to the barley she is sending her at the same time and to return it in the form of loaves of bread. Thus she could silence her husband Merimaat, who threatens her with divorce and daily complains that her mother and siblings never do anything for her and bring them no food. The letter, which was written by a very experienced scribe, probably comes from one of the settlements in Western Thebes (perhaps Deir el-Medina?).

KEY WORDS Ancient Egyptian letters; divorce; Ramesside hieratic ostraca; The National Museum in Prague

ABSTRAKT V Národním muzeu – Náprstkově muzeu asijských, afrických a amerických kultur v Praze je uloženo zajímavé ramessovské (zřejmě z doby vlády Setchiho II, cca 1201–1196 př.n.l.) hieratické ostrakon (P 2027: obr. 1–3) se soukromým dopisem uspořádaným do 11 řádků. Text obsahuje dopis, který jistá Tachentejšepset adresovala své sestře Ijetě. Žádá ji, aby k ječmenu, který jí současně posílá, přidala pšenici a zpět jí vrátila z toho upečený chléb. Tím by umlčela svého manžela Merimaata, který jí vyhrožuje rozvodem a denně jí vytýká, že její matka ani sourozenci pro ni nic nedělají a ani jim nikdy nedonesou žádné potraviny. Dopis, který napsal velice zkušený písař, pochází zřejmě z některého sídliště v západní oblasti Théb (snad z Dér el-Medíny?).

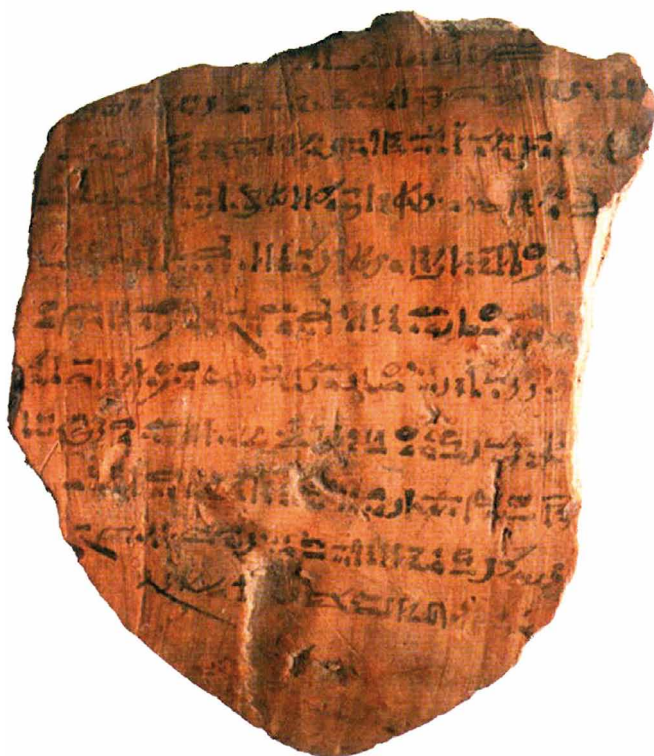
KLÍČOVÁ SLOVA staroegyptské dopisy; rozvod; ramessovská hieratická ostraka; Národní muzeum v Praze

You (i.e. Isis) have made a power for the women equal to that of the men.

(Papyrus Oxyrhynchus XI 1380)

Ze starého Egypta se dochovalo množství soukromých dopisů, které věrně přibližují každodenní život dávných obyvatel země na Nilu s jejich radostmi a starostmi (Wente 1990; Landgráfová – Navrátilová 2011). Naproti tomu úřední dopisy podávají cenné svědectví například o státní administrativě, právních poměrech nebo o správě zádušních statků (Allen 2002). V hrobkách a na stélách významných úředníků, hodnostářů a kněží se dochovaly hieroglyfické opisy královských dopisů s oceněním a chválou určitých příslušníků této společenské elity (Strudwick 2005, 181, 312–314, 331–333). Od počátku 2. tisíciletí př. n. l.

jsou známy vzorové a cvičební dopisy, které se učili a opisovali žáci písařských škol (Caminos 1982). Zvláštní skupinu představují dopisy mrtvým, které vycházely z představy, že zesnulý má moc ovlivňovat živé v dobrém i zlém (Gardiner – Sethe 1928). Psaly je děti svým zemřelým rodičům, vdovec bývalé ženě nebo sestra bratrovi, když se na ně potřebovali obrátit s nějakou naléhavou osobní prosbou nebo žádostí. Žijící odesílatel přitom často dával mrtvému příjemci najevo, že zemřelý je závislý na jeho dobrodiní a na obětinách jídel a nápojů, které mu přinášel do hrobky. Teprve potom se na něho obrátil s prosbou, kterou by měl zemřelý i ve svém vlastním zájmu vyslyšet. Důležité (úřední) dopisy se psaly na papyrové svitky, které písař přeložil napůl a pak složil zdola nahoru na úzké proužky. Takto složený dopis převázal provázkem, zapečetil hliněnou pečetí a navrch připsal jméno adresáta (případně i odesílatele).

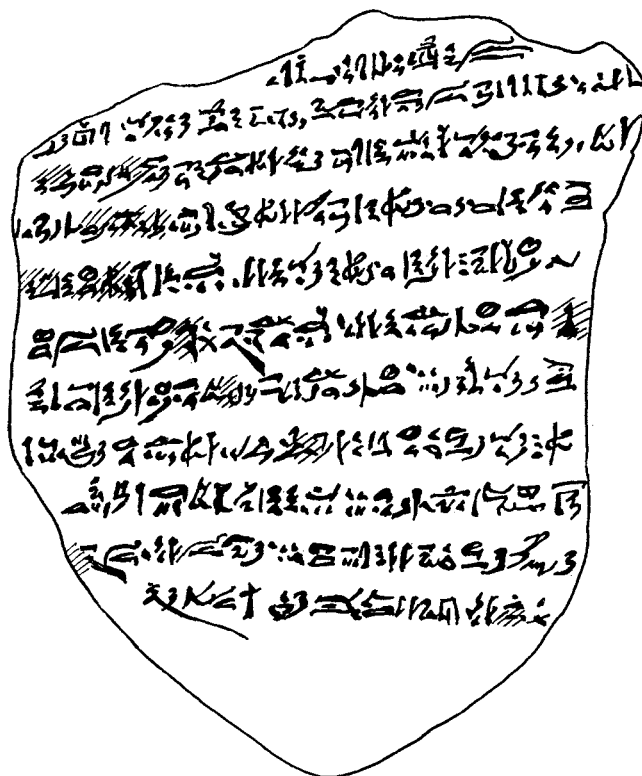


Obr. 1. Anonym, „Hieratické ostrakon s dopisem“, 19. dynastie (zřejmě vláda Setiho II., cca 1201–1196 př.n.l.), načervenalá pálená hlína, 14,9 x 11,5 cm, Dér el-Medína (?), uloženo: Národní muzeum – Náprstkovo muzeum asijských, afrických a amerických kultur v Praze (inv. Č. P 2027). (Foto: Národní muzeum.)

Fig. 1. Hieratic ostrakon with a letter, Dynasty 19 (probably the reign of Seti II, c. 1201–1196 BCE), reddish pottery, dimensions: 14,9 x 11,5 cm, from Deir el-Medina (?). The National Museum – Náprstek Museum of Asian, African and American Cultures in Prague (P 2027). (Photo: The National Museum.)

Ustálená osnova je patrná již u dopisů z Káhúnských papyrů, které byly nalezeny v pyramidovém městě Hetepsenusret (poblíž dnešního Láhúmu) založeném Senusretem (II.) Chacheperreem (cca 1897–1877 př. n. l.): jméno odesilatele, ustálené zdvořilostní pozdravy, zmínka o stavu a zdraví pisatele, vlastní sdělení, pozdravy adresátovým známým a příbuzným, závěrečná věta o důležitosti napsané zprávy a adresa příjemce na již složeném svitku (Collier – Quirke 2002). Méně důležité (soukromé) dopisy se zapisovaly na snadno dostupná ostraka – úlomky vápence a střepy hliněných nádob. Dopisy mrtvým nacházíme navíc i na hliněných nádobách a miskách, v nichž se zemřelému přinášely do hrobky obětiny.

Dopis se ve starém Egyptě stal i samostatným literárním útvarem (Schad 2006). Nejzávažnější literární *Strastiplný dopis* Atumova kněze Vermaje, který se nachází na hieratickém papyru (č. 127) Puškinova muzea v Moskvě (Camino 1977; Vachala 1984) z doby okolo roku 1000 př. n. l., představuje propagační spis s líčením tyranicky ovládané společnosti a věrným popisem trvalých neduhů egyptského venkova, zamýšlený jako chvála na schopného panovníka, jenž jako jediný je schopen sjednat účinnou nápravu.

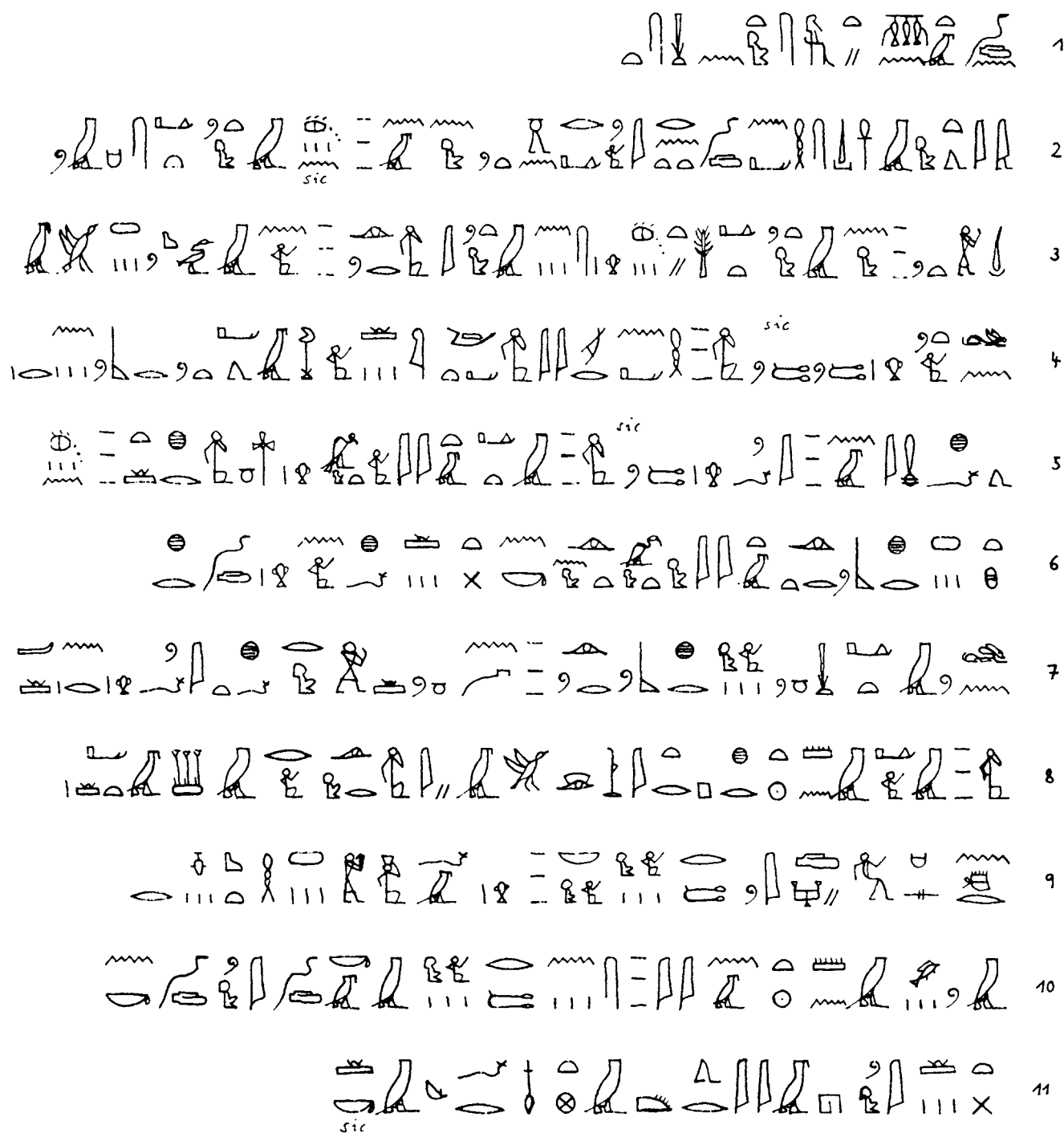


Obr. 2. Hieratický text pražského ostraka P 2027. (Faksimile: Břetislav Vachala.)

Fig. 2. Hieratic text of the Prague ostrakon P 2027. (Facsimile: Břetislav Vachala.)

S dopisy úzce souvisí způsob jejich doručování. Zatímco doručováním královských dopisů byli pověřováni úřední spěšní posli, prostí lidé nejspíše svěřovali své dopisy spolehlivým cestujícím (Valloggia 1976, 256–260; Vachala 1978). Hlavní komunikační tepnou byl Nil, po němž se odbyvala téměř veškerá osobní a nákladní doprava. Rovněž poslové se tedy především plavili. Z popisů a znázornění určitých náboženských svátků je zřejmé, že kněží užívali (zřejmě poprvé v dějinách) k rozšiřování důležitých zpráv ptáků (Keel 1977, 103–142). Například nástup nového panovníka na trůn byl oznámen vypuštěním čtyř divokých husí do čtyř světových stran. Podle příslušné světové strany formule zněla: „Spěchej na sever a řekni bohům severu, že faraon NN si nasadil dvojitou korunu (Horního a Dolního Egypta).“ Při svátcích se také přivazovaly psané zprávy vypouštěným ptákům na krk.

Specifickým způsobem rozšiřování stručných zpráv byly skaraby, sošky brouka vrubouna posvátného (*Scarabaeus sacer*), do jejichž spodní hladké plochy byly vyryty podle autora nejrůznější zprávy: od soukromých novoročních blahopřání až po sdělení událostí, které panovník (zvláště Amenhotep [III.] Nebmaatre: Blankenberg-van Delden 1969) považoval za významné, například jeho sňatek, válečné tažení, dokončení významné stavby, vztyčení obelisku, lov na lvy. Dnešní terminologií se dá říci, že šlo o první nepravděpodobně vycházející „zpravodaj“ v dějinách.



Obr. 3. Hieroglyfický přepis pražského ostraka P 2027. (Přepis: Břetislav Vachala.)

Fig. 3. Hieroglyphic transcription of the Prague ostrakon P 2027. (Transcription: Břetislav Vachala.)

Ale vraťme se zpět k dopisům. V pražském Náprstkově muzeu asijských, afrických a amerických kultur, složce Národního muzea, je uloženo staroegyptské ostrakon se zajímavým soukromým dopisem. Toto ostrakon zakoupil ve 30. letech minulého století Jaroslav Černý (Růžová 2010) v Luxoru a daroval ho Orientálnímu ústavu v Praze, který ho předal 6. 4.

1972 Národnímu muzeu (Onderka 2008, 292–293). Ostrakon je trvale uloženo v depozitáři Náprstkovy muzea pod číslem P 2027 (dříve P 1826); naposledy bylo prezentováno veřejnosti v rámci putovní výstavy „Théby – město bohů a faraonů“ v Náprstkově muzeu v Praze a v Historickém muzeu v Bratislavě v letech 2007–2008 (Mynářová – Onderka 2007, 273).

Ostrakon P 2027 (obr. 1, 2, 3)

Materiál: načervenalá pálená hlína.

Rozměry: 14,9x11,5 cm.

Místo nálezů: neznámé.

Popis: Ostrakon s 11 řádky dobře zachovaného hieratického textu v novoegyptštině, psaného zprava doleva a obsahujícího soukromý dopis. Text byl zaznamenán černým inkoustem, který časem zešedl a zejména v levé horní části ostraka a při jeho pravém okraji značně vybledl. Písmo je drobné; hieratické značky měří na výšku maximálně 7 mm. Vypsáný rukopis a téměř bezchybný text prokazují zkušeného písaře.

Překlad:

1. Tachentejšepset píše své sestře
2. Ijetě. V životě, svěžesti a zdraví. A říká: pošlu ti ječmen a ty mi ho necháš rozemlít,
3. přidat k němu pšenici a pak z toho pro mne udělat chleby,
4. neboť se hádám se (svým manželem) Merimaatem. „Zapudím tě,“
5. říká, když se hádá se mnou i mou matkou o dodání ječmene (potřebného) pro
6. chléb. „Vždyť tvá matka pro tebe nic nedělá,“ říkává mi a (dále) tvrdí:
7. „(Ačkoli) máš bratry a sestry, vůbec se o tebe nestarají,“ a denně se se mnou pře:
8. „(Tachentejšepset,) pohleď, co jsi pro mne udělala od té doby,
9. co zde (s tebou) pobývám, zatímco všichni (ostatní) lidé přinášejí svým příbuzným chléb, pivo
10. a ryby! Zkrátka, měla bys něco říci (nebo)
11. se vrátit zpátky domů.“ Bude dobré, když (to) vezmeš na vědomí.

Datování: 19. dynastie (zřejmě doba vlády Setchiho [II.] Menmaatrea, cca 1201–1196 př.n.l.).

Literatura: Vachala 2011.

Text tohoto pražského ostraka obsahuje dopis, který jistě Tachentejšepset adresovala své sestře Ijetě. S velkou pravděpodobností můžeme předpokládat, že tato prostá žena dopis sama nenapsala, ale nadiktovala ho zkušenému písaři. Byla to jistě běžná praxe, když podle reálných odhadů bylo ve starém Egyptě gramotné pouze 1 procento obyvatelstva (Baines 1983; Baines – Eyre 1983). Šlo o příslušníky vzdělané společenské elity – hodnostáře, královské úředníky, kněze a písaře. Zároveň však existují přesvědčivé důkazy, že rovněž některé ženy uměly číst a psát (Baines – Eyre 1983, 81–85; Bryan 1985).

Po obvyklém začátku a pozdravení (k osnově tehdejších dopisů: Junge 2008, 310–313) následuje žádost sestře, aby ječmen, který jí Tachentejšepset hodlá poslat, nechala rozemlít, přidat k němu pšenici a pak z toho pro ni upéct chléb. Tím by alespoň umlčela svého manžela Merimaata, který jí vyhrožuje, že se s ní dá rozvést, a denně jí vytýká, že její matka ani sourozenci pro ni nic nedělají a nikdy jí ani nedonesou žádné potraviny. Manžel jí přitom důrazně žádá, aby se ozvala, jinak že se může vrátit zpět ke své rodině.

Merimaatova hrozba rozvodem může být v tomto dopisu zcela reálná, čehož si je jeho manželka Tachentejšepset plně vědoma. Stejně jako ve faraonském Egyptě neexistoval pro uzavření manželství (Wilfong 2001; Vachala 2007, 436–451) nějaký formální akt a manželství se nepovažovalo za právní poměr, ale za společenskou skutečnost (ovšem naprosto nezbytnou: Eyre 2007, 223–225), právě tak ryze soukromou záležitostí manželů byl jejich případný rozvod. Ten mohl mít různé důvody. Jelikož hlavním účelem manželství bylo zajištění a výchova potomků, kteří měli zdědit majetek (jeho se bezprostředně týkají až manželské smlouvy sepsané v démotštině a řečtině: Lüdeckens 1960; Pestman 1961; Manning 2003, 835–836) a zaručit pokračování rodiny, mohla jeho trvání značně ohrozit neplodnost ženy. V takovém případě však rozvod nenabízel jedině možné řešení, neboť přípustná a docela běžná byla adopce (Allam 1973; Eyre 1992; Jasnow 2003, 327–328). Důvodem rozvodu mohlo být náhlé tělesné postižení nebo pocit odporu jednoho partnera k druhému, ale především cizoložství (Eyre 1984; Graves-Brown 2010, 42–44). Ačkoli manželský svazek mohl kdykoli vypovědět muž stejně jako žena, ve většině známých případů rozvod inicioval dosavadní manžel. Pro rozvod neexistoval žádný zvláštní termín: manžel svou ženu jednoduše „propustil“, „zapudil“ nebo „zavrhl“, což jsou významy slovesa *cha* (Hanning 1997, 581; Lesko 2002, 346–347), které je použito i v tomto dopisu (ř. 4). V opačném případě žena prostě „odešla“. Nic se přitom nezaznamenávalo. Takzvané rozvodové listy, v nichž se řešilo majetkové vypořádání, jsou zase až démotické (od 6. století př.n.l.). Rozvedený muž i žena běžně uzavírali nová manželství (Robins 1993, 64–67).

Příčinou rodinného nesváru byla v tomto případě skutečnost, že manželčini příbuzní materiálně nepodporovali manžele, což se jinak od nich zřejmě očekávalo, nebo to alespoň očekával Merimaat. Ostatně dodnes docela běžně nějakým způsobem rodiče „přilepšují“ svým potomkům v jejich (začínajících) manželstvích. Ve srovnání s jinými důvody rozvodu nám však ten Merimaatův přece jenom připadá do jisté míry malicherný a sobecký. Rozuzlení tohoto případu se nicméně už asi nikdy nedovíme.

Na závěr ještě zbývá vyjádřit se k otázce místa původu našeho ostraka. Můžeme předpokládat, že ostrakon pochází z některého sídliště v západní oblasti Théb (snad přímo z Dér el-Medíny?), jež se nacházelo mimo vlastní nilské údolí. Svědčí o tom použití obratu o případném návratu (doslova „sestupu“, ř. 11) Ijety zpátky domů do Egypta (doslova do „Černé země“, ř. 11), čímž se míní úrodná obdělávaná země v protikladu k poušti („Červené zemi“), kde se ve vyšší poloze a dále od Nilu nacházela vesnice, v níž spolu oba znesváření manželé žili před 3200 lety.

PODĚKOVÁNÍ

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Reprezentace muslimské ženy v populární literatuře a její vliv na českou čtenářskou veřejnost

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THE REPRESENTATION OF MUSLIM WOMAN IN THE POPULAR LITERATURE AND ITS IMPACT ON THE CZECH PUBLIC

ABSTRACT The literary market in the Czech republic was gutted with a specific kind of so called muslim women novels during the past decades. This genre became enormly popular, particularly after the tragedy of 9/11 2001. Typicaly, the stories depict the women as a victims of cruel patriarchal system of muslim countries and are reproduced in many variations. The popularity of such books attributes to creation and/or confirmation of prejustices against muslim cultures as a whole. The study focusses on the impact of muslim women novels and memoirs on czech public, via analysis of reder´s comments left on the czech reader server www.databazeknih.cz.

KEY WORDS orientalism; muslim woman; women novels; memoirs; islamophobia

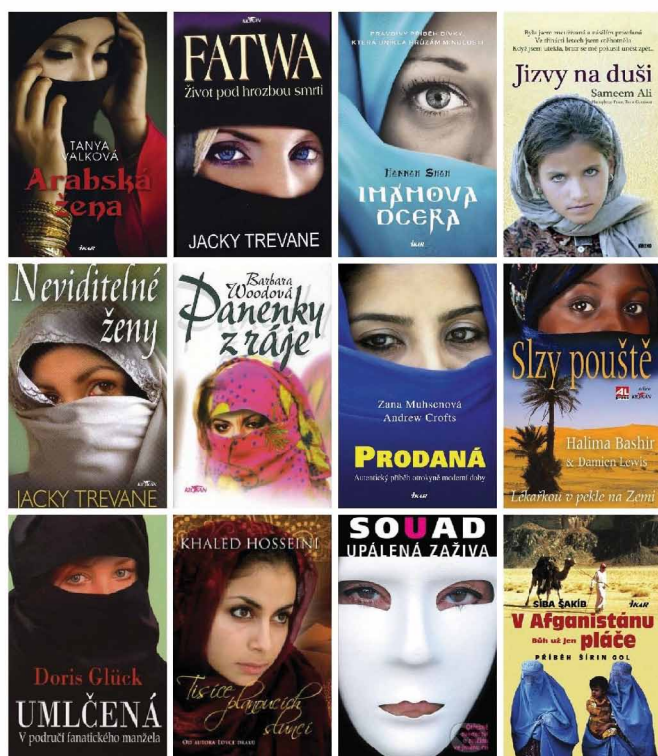
ABSTRAKT Literární trh v České republice byl v posledních dekadách doslova zavalen specifickým typem tzv. ženských románů, zaměřených na osudy žen v prostředí muslimských kultur. Tento žánr zaznamenal enormní popularitu zejména po tragických událostech v USA z 11. 9. 2001. Stereotypní příběhy vykreslující ženu jako oběť patriarchálního systému v islámských zemích se reprodukuji v početných variacích a jejich popularita v českém prostředí napomáhá k tvorbě či potvrzení předsudků vůči kulturám muslimských zemí. Studie se zaměřuje na dopad těchto románů na české čtenářky a čtenáře prostřednictvím rozboru komentářů zanechaných na čtenářském serveru www.databazeknih.cz.

KLÍČOVÁ SLOVA orientalismus; muslimské ženy; ženské romány; memoáry; islamofobie

ÚVOD

V českém prostředí představují muslimové poměrně nečetnou menšinu. Nedostatek osobní zkušenosti s muslimy je u většiny Čechů nahrazen zprostředkovanými obrazy islámu a muslimů předkládaných médii, které prezentují především problematické stránky tohoto odlišného světa. Jedním z faktorů, podílejícím se na formování náhledu české populace na islámské země, jsou ženské romány z orientálního / islámského prostředí. Typicky se jedná o produkci označovanou jako memoáry. Tyto knihy staví na autenticitě a individuální zkušenosti dotčených žen, které přežily většinou těžká trau-

mata (útěk od násilnického manžela či rodiny, přežití „vraždy ze cti“, útisk režimu a podobně). V českém prostředí dosud neproběhla dostatečná reflexe tohoto fenoménu, ani ze strany publicistů, ani ze strany odborníků. Vliv těchto románů a memoárů na širokou veřejnost i jejich význam jako významného politika a (sebe)orientalizujícího média byl však diskutován v mnoha „západních“ i islámských odborných kruzích a je zřejmé, že česká společnost netvoří v tomto případě výjimku. Jedním ze způsobů poznání vlivu tohoto žánru na české čtenářky / čtenáře je analýza komentářů k vybraným dílům, zveřejněných na čtenářském webovém serveru. Výhodou tohoto postupu je přístup k bezprostřednímu a výstižnému vyjád-



Obr. 1. Ukázka sugestivních přebalů knih věnovaných osudům islámských žen. Návrh ilustrace: Tomáš Janků.

ření zážitku z četby popsané (většinou) několika málo větami. Vycházíme z předpokladu, že relativně stručný charakter komentářů vede přispěvovatele k tomu, že se zaměří na nejsilnější a nejvýraznější dojem z četby. Za nevýhodu tohoto přístupu lze považovat anonymitu přispěvatelů a jistý samo výběr až anketního rázu, což znamená, že přispívají jen ti, kdo chtějí a jejichž pohnutky není možné analyzovat. Komentáře byly zpracovány metodou otevřeného kódování v prostředí programu Atlas.ti.

MUSLIMSKÁ ŽENA JAKO (SEBE)ORIENTALIZUJÍCÍ KONSTRUKCE

Od prvních střetů křesťanského „Západu“ a islámského světa se setkáváme s vykonstruovanými tradovanými obrazy žen – muslimek. Postupnou proměnu od mocných žen „obryní“ raného středověku až po současné reprezentace muslimských žen jako pasivních obětí svých rodin i státních režimů popisuje arabsko-americká autorka Mohja Khaf (1999). Svět středověkého „Západu“ vnímal muslimy především skrze údiv a rozhořčení, jak vyspělá a mocná kultura může vzniknout a existovat mimo hranice křesťanského světa. Tento úspěch „nevěřících“ byl přičítán technologické vyspělosti a určitým domnělým magickým schopnostem. Ve středověkých „západních“ pramenech vystupuje muslimská žena poměrně řídko. Její percepce a reprezentace však tvoří analogii k vnímání islámského světa: muslimská žena jako královna nebo vysoce postavená žena obdařená mocí nad osudem

křesťanských hrdinů, „hrozivý a mocný ženský činitel hrozivého a mocného soupeře“ (Kahf 1999, s. 71). Muslimská žena raného středověku postrádá charakteristiky jako závoj, nebo vyloučení z veřejného života, což jsou typické rysy pozdějších prezentací. Zahalené chodily ve středověku hojně i Evropanky, nešlo tedy o exotický rys hodný zvláštní pozornosti. Díky politickým a společenským transformacím během renesance se proměnila i percepce muslimských žen. Pozdní středověk a zejména koloniální éra představuje muslimské ženy stále častěji jako postavy se zdůrazněnou sexuální stránkou. Od obrazů prostopášnic a harémových konkubín se reprezentace v průběhu devatenáctého století mění na nám již známý stereotyp viktimizované ženy trpící v barbarské patriarchální společnosti. Právě takové vykreslení utlačovaných žen v „zaostalých kulturách“ tvořilo významný ideologický základ, který v důsledku opravňoval intervence koloniálních mocností (Zine 2002, s. 4). „Bílí muži zachraňují hnědé ženy před hnědými muži“ jak lapidárně a výstižně poznamenává Gayatri Spivak (Spivak cit. In: Pazargadi 2010).

Bylo by ovšem mylné domnívat se, že stereotypizace pohledů na muslimské ženy je pouze dílem Západu. Značná část produkce pochází převážně z per muslimských autorek, jejichž tvorba je často i formou určité terapie, která má napomoci ženě vyrovnat se s extrémně traumatickými zážitky války, migrace nebo rodinného násilí (Fotouhi 2012, s. 27). Tato motivace, jakkoliv patrně stála na začátku „boomu“ tohoto žánru po roce 2001 a bezpochyby je zastoupena podnes, není ovšem motivací jedinou. Jak dokazuje několik případů ze zahraničí, za memoáry se vydává i tvorba více či méně smyšlená. Na nejrozličnější diskrepance a nesoulad ve skutečných životních datech autorek, reálií popisovaných zemí a jejich memoárovou podobou poukázali investigativní novináři například u knih Zakázaná láska (autorky Normy Khouri) a Upálená zaživa (autorky Souad); (blíže viz Jelodar 2014, Pazargadi 2010). Pozměněné nebo vymyšlené příběhy, či přímo podvrhy, vydávané za autentické příběhy masově konzumované západní čtenářskou veřejností, poukazují na enormní atraktivitu a význam tohoto žánru. Jedním z důvodů této tvorby je i značná poptávka ze strany západní veřejnosti, která tímto způsobem uspokojuje svoji zvědavost až voyeurství týkající se exotických kultur (Huggan 2001). Ekonomický aspekt literatury o muslimských ženách představuje významnou motivaci produkce a šíření tohoto žánru.

MUSLIMSKÁ ŽENA JAKO KOMODITA

Hlad po „autentických“ příbězích muslimských žen zesílil v kontextu tragických událostí z 11. září 2001. Romány reprodukcující negativní stereotypy muslimských mužů se zejména v Americe staly bestsellery (Pazargadi 2010, 3). Čtenáři k tomuto žánru přistupují s určitým očekáváním, které je obvykle naplněno.

Typická produkce „ženské muslimské literatury“ se více či méně drží několika klíše: typicky jde o příběh mladé ženy, která se stává obětí v důsledku neuposlechnutí příkazů, vze-

přeni se tradici a požadavkům rodiny a jsou za to potrestány. Aktérky buď pochází přímo z islámské země, kde se stávají obětí režimu, manžela, nebo vlastní rodiny, případně pochází z Evropy (nebo obecně západního světa), případně jde o zástupce tzv. „druhé generace“ (tedy děti rodičů muslimů, vyrůstající v Evropě), kteří jsou nuceni odejít do země původu rodičů a vdát se za muslimy a stávají se opět oběťmi patriarchální islámské společnosti a nové rodiny. Islámské země zde vystupují jako past, jako místo útlaku a nebezpečí, „Západ“ se naopak stává vysněnou zemí záchranu či přímo „*sekulárním nebem*“ (Jelodar et al. 2014 s. 215).

Jakousi všeobecně srozumitelnou „obchodní značkou“ tohoto žánru se stává obálka knihy, která produkt de facto prodává (obr. 1). V drtivé většině případů znázorňuje exotickou zahalenou ženu, často jen s viditelnými očima, sugestivně se upírajícími na čtenářku / čtenáře. Jak se domnívá S. Fotouhi, obálky tohoto typu mají představovat pro čtenáře provokující výzvu odhalit tento tajemný a západu ukrytý svět. Vyvolává představu jedinečného životního příběhu, který se zračí v očích ženy zahalené tradičním muslimským způsobem (Fotouhi 2012, s. 29). Rovněž často dramatické názvy knih vychází vstřícně očekávání svých čtenářek / čtenářů, v české produkci například: *Fatwa: život pod hrozbou smrti*; *Prodaná*; *Umlčená*. Tyto „paratexty“, tedy tituly, obálky a upoutávky představují jakousi esenci orientalizujícího pohledu na život muslimských žen, pomocí kterých dochází k dalšímu šíření a upevňování stereotypů (Jelodar et al. 2013).

Muslimská žena, respektive její tragický životní příběh, se tak stává doslova obchodovatelnou komoditou. Poptávka trhu vyprodukovala jakousi ideální uměle vykonstruovanou postavu „*Muslimwoman*“ (Cooke in: Gökariksel – McLarney, s. 5), bytost trpící a volající po záchraně. Podstatnější diferenciace muslimské ženy na základě geografické příslušnosti, etnických či třídních kontextů, které vytváří celé spektrum různých způsobů „bytí ženou“ v muslimském světě (Janků 2013) zůstávají prakticky zcela opomenuty.

MUSLIMSKÁ ŽENA JAKO POLITIKUM

Jak bylo již zmíněno výše, západní pohled na muslimskou ženu vždy nějakým způsobem reflektoval kulturně-politickou situaci, ve které se oba „světy“ zrovna nacházely. Dnešní stav netvoří v tomto ohledu žádnou výjimku a stejně jako v koloniální éře reprodukuje obrazy „muslimských žen v nouzi“ (Zine, 2002, s. 3). Podle Whitelocka, představují právě tyto bestsellery a memoáry muslimských žen velmi zneužitelný materiál pro propagandu a šíření islamofobie. Mluví přímo o „*soft weapons*“ pomocí nichž se války vedou v dnešní době: „*V moderních demokratických společnostech se propaganda již nevede prostřednictvím násilného a přesvědčovacího zneužívání idejí, ale jemnou manipulací s názory a emocemi veřejnosti...*“ (Whitelock 2007, s. 3). Obraz agresora je potřeba vyjádřit v co nejhorším světle, aby byl případný útok veřejností podpořen a byl vnímán jako akt záchranu pro utlačovanou část populace.

VLIV MUSLIMSKÝCH ŽENSKÝCH ROMÁNŮ NA ČESKOU VEŘEJNOST NA ZÁKLADĚ ANALÝZY KOMENTÁŘŮ

Pro rozbor bylo vybráno 26 knih s největším počtem komentářů. Celkově bylo analyzováno 398 komentářů (nejnižší počet komentářů k jedné knize byl 4, nejvyšší počet komentářů u knihy byl 82 příspěvků). Komentáře byly čerpány ze severu databazeknih.cz, který umožňuje vkládat pod jednotlivé tituly názory čtenářů / čtenářek, kdy jednotliví přispěvatelé / přispěvatelky nemohou reagovat na příspěvky ostatních.

Příběhy žen vyvolávají v komentujících emoce: smutek, slzy, zlost, strach, hrůzu, mrazení. Jsou jimi hodnoceny jako silné, čtivé a působivé – na tom se podílí často jejich autentičnost a pravdivost. „*Jedna z nejlepších knih, co jsem kdy četla!!! Četla jsem ji jedním dechem a konec knihy jsem probrečela...*“

Komentující s hlavními postavami soucítí a zároveň je obdivují. Na jednu stranu jsou postavy oběťmi, příběhy jsou silně viktimizační a komentáře čtenářů a čtenářek toto potvrzují. Na druhou stranu se v komentářích hlavní postavy heroizují, oceňuje se jejich síla přežít utrpení a promluvit, podat o tomto utrpení svědectví – „*seznámit svět s těmito hrůzami*“.

Ženy se v komentářích ztotožňují s ženskými postavami, prožívají s nimi jejich příběhy, představují si samy sebe na jejich místě, „*hltají příběhy po stránkách*“. Jedná se o fascinující žánr, který upoutává pozornost.

Čtenářky a čtenáři ve svých komentářích vyzdvihují, že se díky knize dozvěděly zajímavé informace o životě v dané zemi (městě / vesnici), nahlédly do struktury tamní rodiny, poznaly mentalitu, smýšlení a zvyky, seznámily se s běžným životem místních obyvatel. Zároveň některé čtenářky uvádí, že se tak dozvěděly hodně o islámu, muslimských tradicích a zákonech, udělaly si představu o islámských národech a zemích. V mnoha případech se jednalo o prostředí, které do té doby považovaly za neznámé. Pro některé autorky komentářů se přečtením dané knihy změnil pohled na prostředí, které popisuje, dříve se jednalo jen o místo na mapě. Současně si některé čtenářky, dle svých komentářů, po přečtení knihy vyhledávaly informace o dané zemi, dále se o tematiku zajímaly. Jedna z komentujících si, dle svých slov, poté přečetla korán, ale pouze jako knihu. Informační hodnota je zvyšována tím, že se často jedná o životní příběhy, dle komentujících, pravdivé, skutečné a autentické.

Nejsilnější téma bylo srovnávání poměrů a údelu hrdinky v knize s životem v České republice. Komentující si po přečtení dané knihy váží života v českém prostředí. Mají, dle jejich slov, štěstí, že žijí v „naší kultuře“. Ačkoliv ani u nás nemusí být situace úplně dokonalá. Často je právě život v ČR oceňován z hlediska postavení žen. „*Po přečtení knihy musí být skoro každá žena ráda, že žije aspoň tady, v České republice*“.

Komentáře pod knihami slouží k ohodnocení knihy a také k možným doporučením / nedoporučením díla ostatním čtenářům. Komentující knihy často doporučují a nejčastěji se odvolávají právě na ostatní ženy. „*Doporučuji přečíst všem ženám, abychom se zamyslely nad tím, jaké máme štěstí, že žijeme ve svobodné zemi a o svém životě si můžeme rozhodnout sami*“.

Právě svoboda je komentujícími vnímána jako nejcennější hodnota, kterou oproti knižním hrdinkám mohou zažívat.

Objevuje se zde také apel, aby tento typ knih lidé četli více a aby se této problematice obecně věnovalo více pozornosti. Špatné postavení žen v islámských zemích je téma, které je pro komentující důležité. V několika případech knihu čtenářky doporučovaly jako *povinnou četbu*. Jako jeden z důvodů komentující uvádí „psaní vlastních příběhů je jedním ze způsobů žen, jak proti absolutní a nepochopitelné nadvládě mužů bojovat“. Autobiografické příběhy, které v sobě, dle komentujících, skrývají opravdovost, mají potenciál situaci v tamních oblastech změnit. Z jiného úhlu pohledu komentáře poukazovaly na změnu nás samotných, tedy změnu být po přečtení knihy lepšími lidmi.

Kultura a život v muslimských zemích jsou pro komentující vzdálené (někteří kvitují slovy „naštěstí“), neuchopitelné a mnohdy také nepochopitelné. Hromadně odsuzují násilí, které na hlavních postavách páchají jejich mučitelé (ať už se jedná o konkrétní postavu nebo o abstraktní entitu – režim). V některých případech se jedná o celkové opovržení tamní společnosti, která je necivilizovaná (oproti západnímu světu), nebo dokonce celého islámu jakožto náboženství – „Opět kniha z prostředí islámu a opět strašné“. Mezi komentujícími se tak formuje obraz utiskovaných islámských žen jako obecné skupiny, jejíž v západních zemích viditelná část je jen pomyslnou špičkou ledovce – „Věřím, že tak otřesné věci se stávají v dnešní době v těchto zemích 90ti % žen“, „nejstrašnější je pomyslení, že ten příběh je o ženě, která měla štěstí. A kolik jich ho nemělo či nemá?“. V jiných případech se v komentářích objevuje relativizace související s přičítání viny konkrétním jedincům nebo skupinám – „Autorka, byť sama konvertovala ke křesťanství, neodsuzuje islám jako takový, jen jeho „špatné pojetí“. Odsuzuje nepravosti, které se dějí v komunitách, odvolávající se mnohdy falešně na Korán. Nicméně ne všechno, co se v této knize děje, souvisí pouze s náboženským vyznáním.“. A zasazení do širšího historického a sociálního kontextu – „Patrně proto, že měla autorka možnost se podrobně seznámit s blízkovýchodními realitami, zasadila tam i děj románu. Jinak se hlavní linie - tyranie, domácí násilí - táhne dějinami i kulturami odnepaměti.“

U knih, které pojednávají o nešťastném příběhu ženy Evropanky, jež se vdala za muže cizince pocházejícího z muslimské země, se v komentářích objevuje varování všech žen před sňatky s muži cizinci, muži z jiné kultury nebo Araby a muslimy. „Příběh, který by mohl pomoci otevřít oči ženám ženoucím se do nerovného sňatku dvou rozdílných kultur a náboženství“, „je to i výstraha pro zamilovanou děvčata do mužů vychovaných v jiném světě“. Zároveň na tyto příběhy reagují lidé v komentářích spíše odsouzením hlavní ženské postavy, s tím, že si za své trápení mohla sama. „autorky mi líto není, má co chtěla, byla naivní a možností vrátit se domů měla až dost... Co čekala? Může být ráda, že žije.“ V takovýchto komentářích se projevuje stereotypní pohled na sňatky s cizinci, muslimy, který nemohou než končit tragicky. V komentářích se objevuje předpoklad sdíleného stereotypu mezi všemi ženami. Tudíž všechny ženy mají vědět, co je pro takový sňatek typické.

Komentující mají také často určitou představu, jak se tento typ románu vyvíjí, jaké prvky se v něm objevují a jak většinou končí – „Příběh klasicky arabský, dívka donucena se vdát za staršího muže...“; „jinak mi kniha připadá jako klasika - Arab a Evropanka. Nepopírám, že kniha má několik zajímavých zvratů, ale jinak je to nalajnované jako obvykle“. Komentovaná kniha není často knihou první s touto tematikou – „jedna z těch lepších knížek, které se zabývají problematikou práv muslimských žen“.

Pokud kniha nesleduje očekávanou strukturu, nalezneme v komentářích dva typy reakcí. Prvním typem je zklamání komentujících, jelikož kniha nespĺnila očekávání a situace v knize se odchyľují od „normálního“ schématu – „Knička mě hodně zklamala. Čekala jsem příběh o Evropance, která se chce/ musí stát arabskou ženou. Přitom je to příběh o Evropance, která se přistěhovala do arabského státu...Některé věci by se tam odehrát ani nesměly a ona je přesto může... Podle mne, se to nedá brát vážně“. Druhým typem reakce je naopak ocenění, že se kniha nadržuje klasické osnovy a přináší nové informace – „Tak jsem čekala, že to bude další knížka z řady trpících Evropanek, co si vzaly Araba a teď pláčou, že jim vzal děti... ale tahle knížka má o mnoho víc“.

Termíny arabské ženy nebo arabský svět jsou komentujícími v některých případech přisuzovány i zemím ne arabským. Ačkoli se děj odehrává např. v Afganistánu, v komentáři pod knihou se objevuje „Příběh klasicky arabský“ nebo „Poutavý příběh, kdy má každý možnost seznámit se nenásilnou formou s dějinami Afganistánu a s postavením žen v arabských státech“. Dochází zde k arabizaci islámského světa a tím k podpoře jeho homogenního chápání.

Knihy také některé komentující utvrzují v tom, co už věděly předtím, v pohledu na trpící muslimské ženy jako nevinné oběti – „To jak autor popisuje postavení arabských žen, ta bezmoc, hlad, násilí, bití - šel mi mráz po zádech. Nechápal jsem... věděla jsem, že to tak v těchto kulturách chodí, ale...“

Pro komentující je v některých případech znepokojivé a nepochopitelné, že se na útlaku žen podílí také ostatní ženy (především matky). Tedy že jako viníci nevystupují pouze muži. V těchto případech lze pozorovat narušení schématu, které se váže k takovému typu příběhů – agresor je muž, oběť je žena. „Nejhorší je, že tou zlou osobou je její vlastní matka a sestra, a ne jak to často bývá otec či bratři.“ Současné jsou tyto ženy agresorky vnímány skrze optiku vyšších pravidel/tradic, ve kterých jsou uvězněny „nejsmutnější na věci je to, že to samy ženy v první řadě udržují tyhle blbě rituály (pozn. ženská obřizka), které jsou násilím na dětech“. Jsou pasivní a podrobené – „ženy vůbec nemají tendenci držet jedna při druhé. Spíše dochází k situaci, kdy ženy mlčky akceptují svou roli ve společnosti, přizpůsobí se očekáváním společnosti, zatvrdí se (či zahořknou) a potom striktně vyžadují stejné chování i od ostatních žen.“ Nebo jsou komentujícími ženy páchající násilí na ženách vnímány jako oběti mužů (respektive mužského světa) – „nejstrašnější mi připadá, že v mnoha případech jsou to jiné ženy, které se na týrání podílejí - je to snad jako s mazáctvím nebo to souvisí s tím, že se snaží být s tyraný raději než s týranými, aby taky nepřišly na řadu“.

Pro některé komentující by bylo prolomení této přičítané pasivity žen východisko, jak odstranit páchané násilí – jinak řečeno, kdyby se ženy odmítaly podílet na páchaní násilí. „V každém případě si myslím, že kdyby ženy v tom podivném světě jakkoliv, ale masově, odmítly toto násilí, muselo by skončit“. Muslimské ženy jsou v komentářích tedy chápány jednak jako oběti, a to vždy společnosti (která může vystupovat skrze rodinu, manžela, režim apod., jež jedná podle určitých zásad). Jednak jsou ženy pomocnice v páchaní násilí, ale i v tomto případě leží vina často na straně mužů, tedy ženy jsou zde opět určitými oběťmi.

Kromě výše představených témat se v komentářích několikrát objevila kritika přebalů knih. Podle komentujících obálky degradovaly samotný obsah knihy. „Jediná vada pro mě byl přebal knihy, který ve mně zpočátku vzbouzel dojem, že se jedná o literaturu z žánru červené knihovny“. Příběhům je přisuzován vyšší status, než který mají příběhy označované jako „červená knihovna“ či „laciná harlequin“.

DISKUSE

České čtenářky a čtenáři pocítují výraznou dichotomii mezi západním a islámským světem, umocňovanou přirozeně i exotickými reáliemi příběhů. Tragické příběhy žen (bez ohledu na jejich pravdivost či smyšlenost) se velice často zobecňují na typický ženský úděl v islámských zemích, které jsou takřka demonizované. Oproti tomu je mnohokrát vyzdvihováno „štěstí“ čtenářek v podobě jejich vlasti v (naopak idealizovaném) prostředí české kotliny. Zajímavé je naprosté opomíjení vlastní, a to i relativně nedávné, historie. Příběhy odpozorované z českého a moravského venkova 19. století a reprodukováné dobovými spisovateli, poskytují překvapivě, i co se autenticity týče, velice blízké analogie „islámským novelám“. Ať už jde o vynucené sňatky končící katastrofou (Maryša bratří Mrštíků), nebo dokonce zabíjení „nevhodně narozených“ dětí za účelem výhodného sňatku dcery (Její Pastorkyňa Gabriely Preissové z prostředí Moravského Slovácka). Zvyk nošení šátků ve venkovském prostředí přetrvávající u starších žen dodnes nemá už ani smysl zmiňovat. Na tuto zvláštní nekritičnost poukazuje například S. Komárek: „Evropská společnost se muslimů děsí, v zásadě ale představují v řadě aspektů její stínový obraz, byť se jejich societ a svou strukturou neliší zásadně od té naší před sto lety.“ (Komárek 2010). Zatímco vymezení se vůči vlastní „barbarské“ historii je dnes nereálné a na vlastní minulost nahlížíme s jakousi „skanzenovitou“ nostalgií, měřítko pro hodnocení „cizí“ kultury jsou nastavena zcela jiným způsobem.

ZÁVĚR

„Ženská muslimská literatura“ je v českém prostředí (stejně jako v evropském i americkém) atraktivním a žádaným artiklem. K žánru čtenáři přistupují většinou nekriticky jako k autentickým příběhům, skýtající zdroj relevantních

informací jak o reáliích dané země a regionu, tak i o rodinných vztazích, o kultuře a mentalitě tamních obyvatel.

Knihy vyvolávají u komentujících především emoce, pro čtenářky / čtenáře jsou čtivé a poutavé. Příběhy u komentujících nejčastěji potvrzují jejich negativní stereotypní představu, případně ji modifikuje (jak přesně se v komentářích neobjevuje). Ženy v muslimských zemích jsou většinou v komentářích vnímány jako homogenní masa, která je obětí svého prostředí (rodiny, režimu) na druhou stranu jsou hlavní postavy heroizovány. Viktimizace se dotýká všech žen, dokonce i těch, které se na páchaní násilí podílejí. Jako pachatele komentující na obecnější úrovni označují společnost, se svými tradicemi, kulturou a náboženstvím, jež je nepřátelská vůči všem ženám. Na konkrétnější úrovni se jedná převážně o muže a rodinu oběti, která může být tvořena i dalšími ženami. V komentářích se objevuje stereotypní vnímání mezietnického sňatku, který podle očekávání končí špatně. Současně je vyslovován předpoklad, že všichni by měli tento stereotyp sdílet (normativita stereotypu). Výrazným rysem je i vnímání islámského světa čtenářkami / čtenáři jako monolitu, nejčastěji je redukován na arabskou kulturu.

V několika případech se setkáváme i s kritikou přebalů knih, jež v komentujících vzbuzují dojem, že se jedná o červenou knihovnu, ačkoli tomu tak dle nich není a knihám je naopak přisuzován vyšší status.

Jak vyplývá z komentářů, jedná se rozšířený a etablovaný žánr, který mnohdy evokuje u komentujících představu jasně dané struktury příběhu, potažmo i konec. Výjimečné nenaplnění tohoto očekávání (dobrý konec) je někdy komentován rozpačitě. Ze zkoumaných komentářů vyplývá, že „ženská muslimská literatura“ ovlivňuje určitým způsobem své publikum a modifikuje do jisté míry vnímání islámu a muslimů (jak muslimských žen, které jsou oběti, tak muslimských mužů jakožto pachatelů, tak islámu jako nepřátelské sociální prostředí). Avšak s přihlédnutím ke zkoumanému vzorku a jeho limitům je nutné konstatovat, že vždy záleží na konkrétním čtenáři a čtenářce a jejich osobních charakteristikách, jak se k danému tématu postaví. Zda přijmou knihu jako přesný obraz reality a jedinou univerzální normou pro islámský svět, anebo ho budou vnímat jako to, čím je, tedy především literárním dílem s větší či menší mírou autorské licence a jistě nepokrývající všechny aspekty postavení žen v muslimských zemích.

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Topinka, Daniel (25. 5. 1971, Opava) vystudoval sociologii a religionistiku na Filozofické fakultě a Fakultě sociálních studií na Masarykově univerzitě v Brně, doktorskou práci na téma integrace muslimů do české společnosti obhájil na Univerzitě Palackého v Olomouci v roce 2008. V současnosti působí jako odborný asistent na Katedře sociologie, andragogiky a kulturní antropologie Filozofické fakulty Univerzity Palackého v Olomouci a ve výzkumné společnosti SocioFactor. Zabývá se problematikou sociální inkluze a exkluze, sociologií a antropologií migrace, náboženstvím ve veřejném prostoru, etnickými a religiozními identitami, emickou perspektivou okrajových a marginalizovaných skupin a islámem.

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Fórum / The Forum

Interpretace některých historických událostí v díle Jozefa Sunegy

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INTERPRETATION OF SOME HISTORICAL EVENTS IN THE WORK OF JOZEF SUNEGA

ABSTRACT In the letters of Jozef Sunega (from 1989) is documented several idiosyncratic interpretations of historical events. He dealt with the way of Markoman's fight against the Romans, including the death of Emperor Marcus Aurelius and effect of mission by Constantine (Cyril) and Methodius. We can pay silent tribute to him with a smile.

KEY WORDS archaeology; history; Markoman's wars; mission of Constantine (Cyril) and Methodius

ABSTRAKT V dopisech Jozefa Sunegy (z roku 1989) je dokumentována zvláštní interpretace historických událostí. Zabývá se střety Markomanů s Římany, smrtí císaře Marka Aurelia a misí Konstantina (Cyrila) a Metoděje. Tomuto svéráznému badateli můžeme věnovat s úsměvem tichou vzpomínku.

KLÍČOVÁ SLOVA archeologie; historie; markomanské války; misie Konstantina (Cyrila) a Metoděje

Během roku 1989 přicházel na adresu Archeologického ústavu ČSAV v Brně asi tak jednou za měsíc dopis z Bratislavy, o jehož vyřízení byl mezi pracovníky veliký zájem, takže autorovi tohoto příspěvku se podařilo získat jen část této korespondence¹. Dopisy, často doplněné kresbou, psal ve slovenštině, čitelně rukou Jozef Sunega z Bratislavy-Dúbravky. Pro charakteristiku autora je možno uvést text ze záhlaví dopisu z 19. 3. 1989:² „Hľa píšem všetky věci znova. Hľa robím všetky věci nové??? O písme – o našich vysokých školách.“ Sám se pokládal za potomka královské rodiny Sunegovcov a jeho předkem měl být solný král Sunega vládnoucí v Kolárovcích na Hrádku, kde vyráběl sůl ze slané vody z Veličky. Na svém královském hradě v Žilíně ubytoval také misii Cyrila a Me-

toděje. Je tam i Metodějův hrob a místo narození Přemysla Oráče, manžela Libuše. Král Sunega provdal svoji dceru Danišu Sunegovou někdy v letech 916–920 za Maďara, ale o rok později ji Maďari zavraždili.³

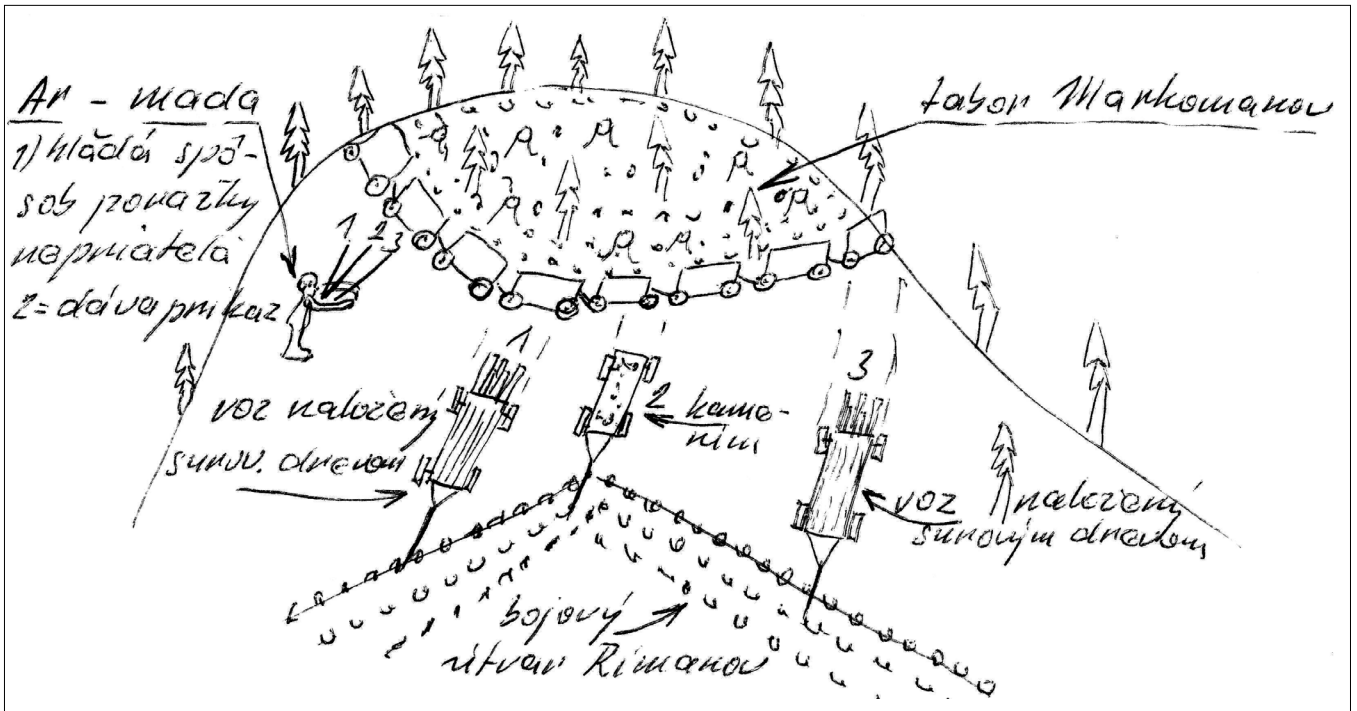
Jozef Sunega se vyjadřoval k astronomii, meziplanetárním letům, geografii i politice. Dříve než přistoupíme k prezentaci vybraných příkladů z historie, je možno se zastavit u Olomouce, kde prý bývala Vysoká vojvodská škola situovaná do budovy dnešní věznice, vedle níž byly asi tři až čtyři budovy ubytoven. Tato univerzita vyslala v 8. století př. n. l. za Nabukadnezara vojvodu do Babylonu. Dnešní Univerzita Karlova pochází z Plzně (Bory) a dodávala vojenské velitele do války s Nabukadnezarem. Správně se však jednalo o univerzitu Karla Sunegy, která je o mnoho starší. Vysoká vojvodská škola byla také v Žilíně, ale některé třídy se nacházely v Bôriku i Kolárovcích na Hrádku.⁴

1 Č. j. Archeologického ústavu ČSAV Brno 610/89 z 19. 3. 1989-1/12-20/12; 1170/89 z 21. 9. 1989-1/19-8/19 a bez č. j. z 16. 11. 1989-1/17-8/17. Uloženo v archivu autora tohoto příspěvku. Adresa J. Sunegy je známa, ale v tomto příspěvku se neuvádí

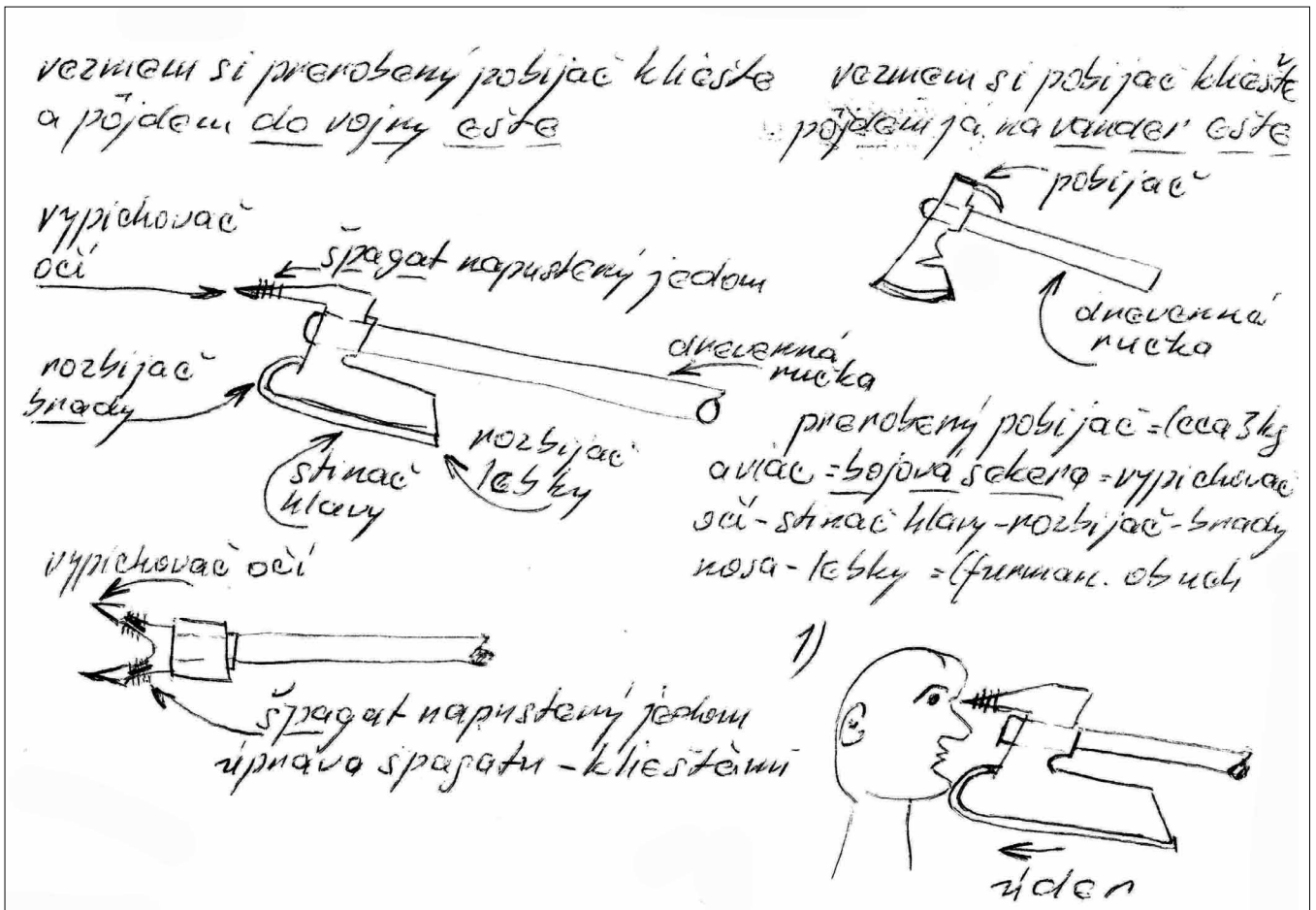
2 Č. j. 610/89-1/12.

3 Č. j. 1170/89-5/19.

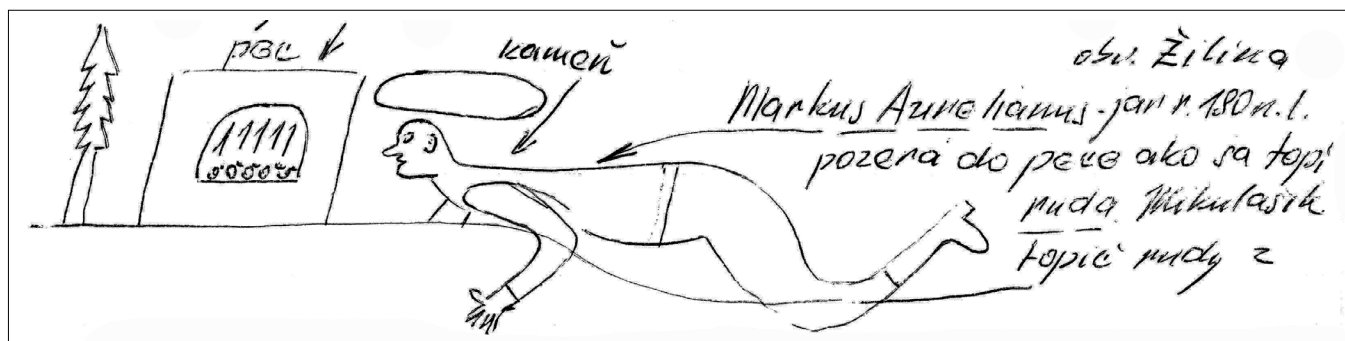
4 Č. j. 610/89-11/12 a 12/12.



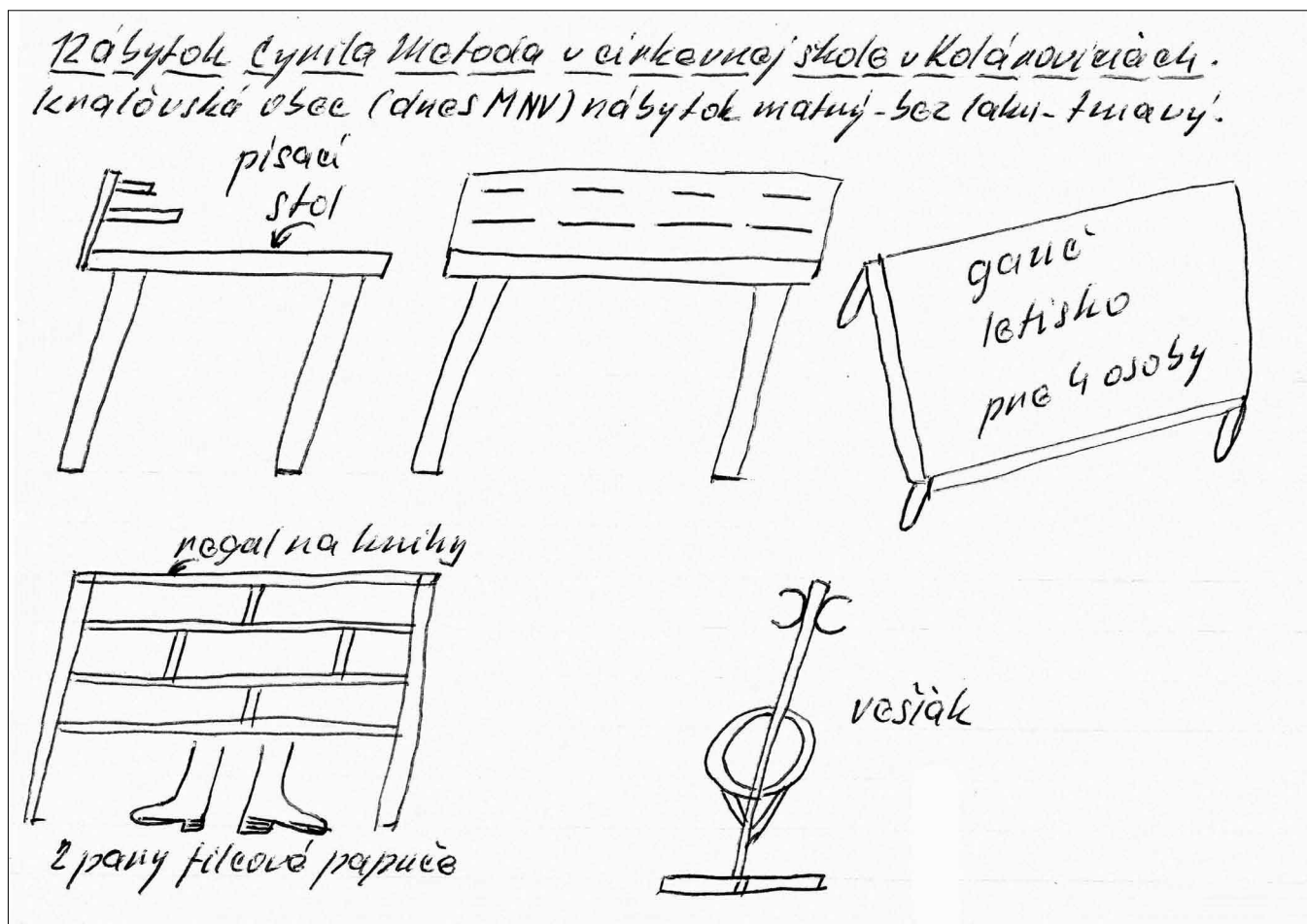
Obr. 1. Bitva Markomanů s Římany.



Obr. 2. Užítí „prerobeného pobijača“.



Obr. 3. Smrt císaře Marka Aurelia.



Obr. 4. Výbava ložnice arcibiskupa Metoděje.

Markomanské války, známé z historických pramenů a osvětlované i archeologií (Droberjar 2002, 168–170), se staly tématem dvoustránkové interpretace Jozefa Sunegy.⁵ Především se zabýval vítězným bojem Markomanů, kteří ze svého tábora na kopci, na pokyn svého velitele Ar-mady spustili vozy naložené syrovým dřevem a kamením na bojový útvar Římanů a tak zvítězili (obr. 1).

Jako velmi účinnou zbraň používali Markomani upravenou

sekeru, o níž lze tvrdit: „Vezmem si prerobený pobijač kleš- te a pôjdem do války ešte.“ Tato zbraň umožňovala vypíchnout oči, rozbít bradu, setnout hlavu, rozbít lebku a přitom byl vypichovač očí ještě napuštěn jedem. Boj sestával ze čtyř úderů, při nichž prvním úderem bylo možno vypíchnout oči, otrávit nepřítele, zlomit mu nos a rozseknout bradu. Druhým úderem byla rozbíta lebka, třetím rozpáráno břicho a čtvrtým useknuta hlava, ruce a nohy. Jednalo se o zbraň specializované jednotky Markomanů (Čechů, Moravanů a Slováků), kteří porazili Římany (obr. 2).

5 Č. j. 610/89-16/12 a 17/12.

Smrt císaře Marka Aurelia nastala tak, že císař chtěl na jaře roku 180 vidět výrobu „prerobeného pobijača“ v Kolárovcich-Boldove, ale slévač (topič rudy) Mikulašík z osady Pláne mu hodil na hlavu kámen. Nedopustil tak zjetí výrobců těchto zbraní, které chtěl císař odvézt do Itálie. Markus Aurelius nezemřel tedy na mor, ale byl na mol – opilý medovinou (obr. 3).

Velmi důležitou kulturní a politickou událostí v 9. století byl příchod a působení misie vedené Konstantinem (Cyrilem) a Metodějem (Měřínský 2011). Neudivuje tedy, že i tomuto tématu se Jozef Sunega na několika místech věnoval.⁶ Kostel, který vysvětil arcibiskup Adalram Pribinovi v jeho sídelním městě NitRavě, je totožný s dnešním farním kostelem na „Valoch“ v Žilině. Byl přestaven z sunegovského vojvodského hradu a je v něm za oltářem pohřben i arcibiskup Metoděj. Metodějova církevní škola byla však v Kolárovcich. Ještě v letech 1934–1935 bylo zařízení školy zachováno a pečovala o ně učitelka Felcmanová (dnes Kotešová-Hliník), která od Cyrila a Metoděje měla dva sešity. Zařízení místnosti, v níž spával Metoděj, sestávalo z válendy pro čtyři osoby (letiska), regálu na knihy, pod nímž byly dva páry papučí, věšáku na obleky, psacího stolu, dvou svícňů a zvířecí kůže na zahřívání. Celé zařízení Jozef Sunega pečlivě nakreslil (obr. 4).

6 Č. j. 1170/89-3/19, 4/19, 8/19.

Co z uvedených ukázek vyplývá? Především to, že Jozef Sunega se zajímal o některé dějinné události a podle svých možností a představ je interpretoval, takže tomuto svéráznému „badateli“ můžeme s úsměvem věnovat tichou vzpomínku.

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AUTOR

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Recenze / Reviews

Egyptská královna Teje

Egyptian Queen Teje

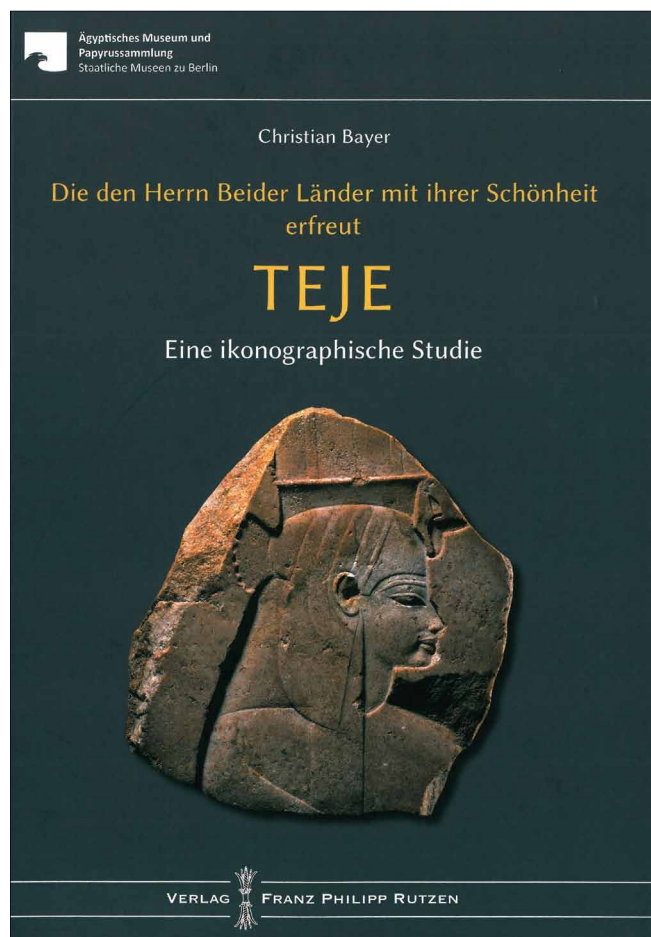
BŘETISLAV VACHALA

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Jedním z nejvýraznějších staroegyptských panovníků vůbec byl bezesporu Amenhotep (III.) Nebmaatre, jenž vládl zemi na Nilu plných 38 let (cca 1410–1372 př.n.l.), a to s vydatnou pomocí své prozíravé manželky Teje. S ní se oženil již ve 2. roce své vlády, kdy mu bylo nejvýše 14 let. Po svém otci Thutmosovi (IV.) Mencheprureovi zdědil skutečnou světovou říši sahající od Eufratu na východě až po čtvrtý nilský katarakt na jihu, kterou byl schopen udržovat a rozvíjet nejen prostřednictvím úspěšných válečných tažení hluboko do Dolní Núbie (o nichž podal svědectví i jeho núbijský místokrál, *královský syn z Kuše* Merimes, jehož některé památky jsou také uloženy v pražském Náprstkově muzeu: B. Vachala, *Der Vizekönig Merimose in Prag*, *Archiv orientální*, 60 [1992], 337–338; P. Onderka, *Merimose, královský syn z Kuše*, in: P. Onderka, [ed.], *Egypt za vlády faraonů*, Praha 2003, 63–69), ale také vhodných diplomatických jednání, včetně výhodných politických sňatků s mitannskými a babylónskými princeznami, které však vždy zůstávaly pouze vedlejšími ženami (N. Reeves, *Echnaton: Ägyptens falscher Prophet*, Mainz am Rhein 2002, 68–70). Navíc se částečně dochovala zajímavá diplomatická, velmi prozíravá Amenhotepova korespondence s babylónskými, mitannskými, asyrskými a chetitskými králi a syrskými knížaty (W. Moran – V. Haas – G. Wilhelm, *Les lettres d'El-Amarna, correspondance diplomatique du pharaon*, Paris 1987). Politická stabilita, dlouhodobá hospodářská prosperita země, rozvinutá zemědělská výroba, přísun núbijského zlata a dokonale fungující státní administrativa následně vytvořily předpoklady k neobyčejnému rozvoji stavební činnosti a vedly k rozkvětu umění a řemesel. Výjimečná osobnost Amenhotepa III., jeho doba i tehdejší každodenní život se v současnosti poprvé dočkaly zaslouženého obecného poznání a povědomí díky znamenité putovní výstavě (poprvé uspořádané v The Cleveland Museum of Art; Kimbell Art

Museum – Fort Worth), která vyvrcholila v pařížském Grand Palais v roce 1993 (A. P. Kozloff – B. M. Bryan – L. M. Berman, [eds.], *Aménophis III: le Pharaon-Soleil*, Paris 1993).

Rovnocennou partnerkou *Oslnivého slunce* Amenhotepa byla zmíněná *Ta, která těší Pána Obou zemí svou krásou* Teje, byť nekrálovského původu, když její otec Juja – vysoký státní úředník, pocházel z Achmímu a možná dokonce byl i cizího (mitannského?) původu. Nicméně jejich sňatek byl zásadní



Přebal knihy: Bayer, Christian Josef: *Die den Herrn Beider Länder mit Ihrer Schönheit erfreut TEJE. Eine ikonographische Studie*. Ruhpolding: Verlag Philipp von Zabern (In Kommission bei Harrassowitz Verlag, Wiesbaden). XVII + 466 stran, 86 tabulí + 1 složená. ISBN 978-3-447-06952-6.

udalostí a byl také náležitě připomenut pamětními skaraby, které lze do jisté míry považovat za první, nepravidelně vycházející „zpravodaj“ v dějinách (Z. Žába, *Tesáno do kamene, psáno na papyrus*, Praha 1968, 144–145). Královna Teje však hrála důležitou úlohu i po smrti svého královského manžela, když jejich prvorozený syn Thutmose předčasně zemřel a následníkem trůnu se stal jejich druhý syn Amenhotep (IV.) Neferchepreure – Achnaton. Právě tomuto náboženskému reformátorovi byla velkou oporou, jistě ho okázale navštívila ještě ve 12. roce jeho panování v novém sídelním městě Achetatonu, možná tam i trvale přesídlila a zřídila si svou vlastní rezidenci (D. P. Silverman – J. W. Wegner – J. H. Wegner, *Akhenaten and Tutankhamun. Revolution and Restoration*, Philadelphia 2006, 128). V každém případě tam s ním chtěla být i monumentálně zvěčněna (L. Manniche, *The Akhenaten Colossi of Karnak*, Cairo – New York 2010, 99). Značná musela být také její politická úloha, jak o tom svědčí dochované amarnské dopisy (EA 26: Ch. Jönsson, *Diplomatic Signaling in the Amarna Letters*, in: R. Cohen – R. Westbrook, [eds.], *Amarna Diplomacy. The Beginnings of International Relations*, Baltimore – London 2000, 191–204 [201–202]; P. Artzi, *The Diplomatic Service in Action: The Mittani File*, *id.*, 205–211 [210–211]). Ba co více, Teje byla možná původně pohřbena v hrobce svého syna Achnatona, než byly později její ostatky přeneseny do Údolí králů (hrobka KV 55: N. Reeves – R. H. Wilkinson, *The Complete Valley of the Kings. Tombs and Treasures of Egypt's Greatest Pharaohs*, Cairo 1996, 118–121), soudě podle nálezů učiněných v této hrobce (G. T. Martin, *The Royal Tomb at El-Amarna, II. The Reliefs, Inscriptions, and Architecture*, London 1989, 24, 31, 56) a dokladů na zdejší provozování jejího kultu (M. Eaton-Krauss, Tiye, in: D. B. Redford, [ed.], *The Oxford Encyclopedia of Ancient Egypt*, 3, Oxford 2001, 411). Pokud však jde o sledování potomků Teje, ani zajímavé výsledky antropologického, radiologického a genetického studia královských mumií 18. dynastie (uskutečněného v rámci rozsáhlého mezinárodního „The King Tutankhamun Family Project“) ještě neřekly poslední slovo (Z. Hawass et al., *Ancestry and Pathology in King Tutankhamun's Family*, *Journal of the American Medical Association*, 303/7 [2010], 638–647).

Není divu, že výjimečná královna Teje, *podobná Maatě, když následuje Rea*, byla patřičným způsobem zvěčňována ikonograficky, a to od monumentálních sousoší, přes jednotlivé sochy, dřevěné plastiky, chrámové reliéfy a nástěnné malby v nekrálovských hrobkách, až po stély, skaraby, pečetítka a různé ozdobné i užitkové předměty. A tak můžeme jen souhlasit s přiléhavými slovy autora předložené monografie, že na základě dochovaných hmotných a ikonografických pramenů se Teje dnešními slovy jeví jako „královna superlativů“ a že žádná jiná královna Nové říše, s výjimkou Nefertiti, nikdy nebyla „tak prominentní“ (s. 423). Na rozdíl od dlouhodobé pozornosti

věnované uměleckým dílům zobrazujícím Amenhotepa III. (L. M. Berman, [ed.], *The Art of Amenhotep III: Art Historical Analysis*, Cleveland 1990), se nyní zaslouženě stalo předmětem samostatné studie také souborné zpracování ikonografie všech dochovaných zobrazení jeho pozoruhodné manželky.

Recenzovaná monografie má tři zásadní části, přičemž první nás přesně seznamuje s vůdčí osobností a předkládá nám jasně definovanou teorii, metodiku a názvosloví (s. 1–25), takže se také dobře můžeme zorientovat v použitých uměnovědních klasifikacích, což je v egyptologické publikaci neobvyklé. Autor je dokáže rozlišit, spolehlivě posoudit a směřodatně aplikovat ve dvou následujících kapitolách shrnujících Tejiny sochařské (s. 27–183) a malířské i reliéfové (s. 185–421) práce. Zásluhou Christiana Bayera jsou poprvé všechny dochované hmotné a ikonografické prameny připomínající královnu Teje publikovány, včetně těch nejistých (s. 122–142) a také mylně přiřazených (s. 142–155, 375–382). Autorovi se je však nejen podařilo shromáždit a dokumentovat (dokumenty 1–94), ale také z egyptologického hlediska vysvětlit a poprvé také uměnovědně interpretovat. Ve všech případech jsou pečlivě uvedeny základní údaje zahrnující místo uložení a nálezu (pokud je známé), materiál, míry, dosavadní literaturu, stav, typologii, popis, nápisy, provedení a stylistiku, poznámky, diskuse a datování. Knihu, která poprvé a uceleně představuje královnu Teje z hlediska osobité ikonografie, vhodně doplňují závěrečné poznámky (s. 423–426), soupisy (s. 427–466) a 86 tabulí se 190 vynikajícími barevnými a černobílými fotografiemi a jedna složená tabule.

Na závěr můžeme připomenout, že do budoucnosti lze počítat s dalšími novými nálezy historických pramenů připomínajících královnu Teje, a to zvláště v souvislosti se systematickým odkrýváním monumentálního zádušního chrámu Amenhotepa III. na dnešní lokalitě Kóm el-Hittán na západním břehu Nilu naproti Luxoru (H. Sourouzian, *Recent work in the temple of Amenhotep III*, *Egyptian Archaeology*, 44 [2014], 39–41 [40]). Ostatně ve své době byl tento *Dům milionů roků* největším a nejvýstavnějším chrámem, přičemž mu vévodily slavné Memnonovy kolosy znázorňující Amenhotepa III. sedícího na trůnu, se stojícími postavami jeho manželky Teje a matky Mutemviji po stranách (M. Balík – B. Vachala, *Zádušní chrám Amenhotepa III. v Thébách [Egypt]*, in: V. Hašek – R. Nekuda – M. Ruttkaý, [eds.], *Ve službách archeologie – In Service to Archaeology. Studies in Honor of Alexander Ruttkaý*, 2, Brno – Nitra 2007, 183–191). V každém případě však na Bayerovu příkladnou a spolehlivou studii budou moci navazovat jeho pokračovatelé. Teje si to zaslouží...

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Zprávy / Reports

Sedmdesát M(m)alinových let

Jubilee of professor Jaroslav Malina

ROBIN PĚNIČKA

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V letošním roce vstoupil prof. Jaroslav Malina (narozen 11. dubna 1945 ve Vrdech) mezi jubilanty, kteří jsou mezi námi úctyhodných sedm desítek let. Za tu dobu se stal jednou z nejvýznamnějších osobností české antropologie. U této příležitosti bych se rád podělil o své dojmy ze vzájemné spolupráce a každodenního setkávání s jubilantem na Ústavu antropologie Masarykovy univerzity.

Pro každého člověka je velmi důležité první setkání s neznámou osobou, kdy si o ní vytváří základní dojem. Podobnou situaci zažívají mladí posluchači antropologie, kteří mají jednu z prvních příležitostí poznat pracovníky našeho Ústavu na *Antropologickém semináři*. Na něm se benjamínci antropologie seznámí nejen s naším jubilantem, ale díky jeho přátelům a hostům se ihned od počátku seznamují s největšími osobnostmi české i světové antropologie a příbuzných oborů. Antropologický seminář se stal věhlasný nejen díky své odborné úrovni, ale i vtipným komentářům, kterými jubilant doprovází jednotlivé řečníky. Díky jeho plnému nasazení se stal seminář jedním ze stálých míst odborného i společenského setkávání celé antropologické obce. Jeho součástí jsou totiž i každoroční enkulturace nejmladších adeptů antropologie a předvánoční odborná setkání zakončená neformální zábavou při sklence lahodného moku. Není překvapením, když mezi studenty, kteří se teprve seznamují s antropologií a svými staršími kolegy, narazíte na našeho jubilanta, jak se věnuje nejmladšímu potěru a předává cenné rady jak hladce proplout divokými vodami brněnské antropologie. Abychom však nezůstali jen u Antropologického semináře, můžeme našeho pana profesora potkat také na odborných přednáškách, na kterých nás seznamuje s antropologií, starověkými civilizacemi či sexuálním životem nejen našich předků, ale i současných společností. Každá přednáška je prostoupená jeho bohatými zkušenostmi a znalostmi, které jsou zpravidla doplněny o uměleckou vložku v podání samotného profesora Maliny.



Prof. Jaroslav Malina přebírá ocenění za nejlepší elektronický slovník na akci Svět knihy 2013. Oceněn byl soubor tří elektronických encyklopedií (*Encyklopedie antropologie*, *Encyklopedie sexuality, erotiky a lásky všech kultur světa* a *Člověk-auto-encyklopedie*), které vznikly pod jeho editorským vedením.

Umělecká tvořivost je pro našeho jubilanta charakteristická. Nejen suchopárné vědecké poznatky a nic neříkající čísla posouvají člověka dále, ale díky uměleckým prožitkům je lidská duše povznesena a člověk se ve svém bytí posouvá stále kupředu. Humanologický přístup je pro Jaroslava Malinu tím hlavním, co se snaží předávat svým spolupracovníkům a studentům. Těmto snahám odpovídá i nepřeborné množství říkanek, básniček a dalších vtipných obrátů, které náš jubilant vymýšlí a šíří do svého okolí. Avšak umělecká tvorba není pro našeho jubilanta tím jediným, pro co se ve svém životě nadchl. Z dalších činností, kterým se aktivně věnuje, jmenujme vedle řízení jeho oblíbených automobilů především sport. Není dne, kdyby se náš jubilant nevydal ven bez své tenisové rakety, se kterou prožil neskutečné zážitky. Sportovního ducha, kterého neustále pěstuje, se snaží předávat i svým mladším kolegům a studentům. Nepřekvapí proto, když návštěvníci Ústavu an-



Ve svém „království“ na Ústavu antropologie, kde se snoubí věda, sport a umění.



S jedním ze svých automobilových miláčků před Ústavem antropologie v březnu 2008.



Na mezinárodním tenisovém turnaji v Chorvatsku (červen 2011), kde sklízel úspěchy zejména ve čtyřhře.

tropologie uvidí našeho jubilanta za ping-pongovým stolem, jak se snaží zvítězit v turnaji se svými kolegy či žáky. Pro sport se pod jeho vlivem nechávají strhávat nejen studenti antropologie, kteří na jeho počest pořádají turnaje o Malinový pohár, ale také návštěvníci našeho ústavu, se kterými si náš jubilant vždy s radostí zahráje.

Své bohaté zkušenosti z vědeckého, uměleckého i sportovního života předává Jaroslav Malina mladším spolupracovníkům i studentům nejen prostřednictvím svých přednášek, ale také svou literární činností. Výčet jeho publikací zahrnuje úctyhodné množství odborných monografií a článků. Z poslední doby stojí jistě za zmínku unikátní „encyklopedická řada“, která se věnuje jeho nejoblíbenějším tématům – antropologii (*Encyklopedie antropologie*), au-

tomobilům (*Člověk – Auto – Encyklopedie*) a erotice a lásce (*Encyklopedie sexuality, erotiky a lásky všech kultur světa*). Ve své umělecké tvorbě se také věnuje popularizaci antropologie (např. kniha pohádek pro děti *Mluvicí prahr-nec a jiné prapříběhy*), tvorbě souborů humorných říkáněk a básní (např. *Anti-encyklopedie Anti-antropologie*), a také pořádání uměleckých výstav v ústavní *Galerii „po ruce“*.

Z předcházejících odstavců je patrné, že Jaroslav Malina je renesanční osobností. Svými všestrannými aktivitami se stal jednou z ikonických postav našeho ústavu i české antropologie. Do dalších let tvůrčí práce přejeme jubilantovi hodně zdraví a životní pohody, aby mohl své bohaté odborné, umělecké a sportovní zkušenosti i nadále předávat svým spolupracovníkům a studentům.

Pokyny pro přispěvatele časopisu *Anthropologia integra*

Časopis *Anthropologia integra* uveřejňuje odborné texty (v anglickém, českém, německém a slovenském jazyce), které odpovídají jeho interdisciplinárnímu zaměření.

Redakce přijímá příspěvky elektronicky přes redakční systém (více o registraci do systému na https://journals.muni.cz/anthropologia_integra) případně e-mailem na obě dvě uvedené adresy: jmalina@sci.muni.cz a tmorkovsky@email.cz.

Recenzní řízení

Příspěvky publikované v časopise *Anthropologia integra* procházejí recenzním řízením. V jeho průběhu texty posuzují po formální i obsahové stránce dva domácí či zahraniční odborníci a na základě jejich stanovisek obsažených v recenzních posudcích jsou autoři doporučeni případné úpravy. Cílem je publikovat práce obsahující nové, dosud nezveřejněné poznatky, jež přispívají k rozvoji oboru a dodržují vysoký standard odborné prezentace.

Pokyny formální

Časopis publikuje studie, eseje, zprávy, recenze a příspěvky popularizující vědu a umění. Délka příspěvků by neměla přesahovat u studií 20 normostran, u ostatních příspěvků 10 normostran a u recenzí a zpráv 3 normostrany (normostrana obsahuje 1800 znaků včetně mezer).

Obsah a členění příspěvku:

1. Název příspěvku.

2. Jméno autora a kontakt ve formě plného názvu a adresy pracoviště a e-mailové adresy.

2.1. U příspěvku v českém nebo slovenském jazyce následuje za jménem autora a kontaktem název a krátké shrnutí v angličtině (abstract), jehož rozsah by měl být 100 až 200 slov (do 1500 znaků); pod abstraktem 5–8 klíčových slov v anglickém jazyce (keywords). Za abstraktem a klíčovými slovy v angličtině následuje abstrakt a klíčová slova v češtině (ve stejném rozsahu).

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3. Krátký životopis zařazený na konci příspěvku v rozsahu 20–30 slov (ve stejném jazyce jako text příspěvku).

4. Odkazy na položky literatury ze seznamu literatury v textu jsou v kulatých závorkách – odkazy mají podobu: ... (Boas 1908, 25–28).

5. Příklady základních druhů bibliografických hesel v seznamu literatury:

5.1. knižní monografie

Aldred, Cyril (1971): *Jewels of the Pharaohs. Egyptian Jewellery of the Dynastic Period*. London: Thames and Hudson.

Vachala, Břetislav (2009): *Staroegyptská Kniha mrtvých. Překlad*. Praha: Dokořán.

5.2. studie ve sbornících

Störk, Lothar (1984): Rabe. In: Helck, Wolfgang – Westendorf, Wolfhart, eds., *Lexikon der Ägyptologie*, V. Wiesbaden: Otto Harrassowitz, 74–75.

5.3. články v časopisech

Borofski, Robert (2002): The Four Subfields: Anthropologists as Mythmakers. *American Anthropologist*, 104(2), 463–480.

5.4. elektronické dokumenty

Hoder, James (1999): The Development of Anthropology in the Sciences and Humanities. (online). <http://www.hoder.com>.

6. Poznámky pod čarou umístěné na téže stránce v textu označujte horním indexem a jejich vlastní text doplňte odkazy na literaturu (citují se shodně jako odkazy na položky literatury).

7. Citaci uvádějte doslovně (včetně případných chyb v původním textu; označte je: sic) a vždy vkládejte do uvozovek. Chcete-li část citace vynechat, napište kulaté závorky a v nich tři tečky.

Pokyny technické

1. Rukopisy musí být vytvořeny v textovém editoru Word nebo jiném kompatibilním editoru a mít formát .doc nebo .rtf. Měly by používat velikost písma 12, řádkování 1,5 a odsazení na obou okrajích 2,5 cm. Stránky musí být očíslovány na dolním okraji strany uprostřed.

2. Slova na konci řádku nedělte a nezarovnávejte. „Tvrdé“ zakončení řádku (pomocí klávesy ENTER) užívejte pouze na ukončení odstavce nebo titulku a podtitulku.

3. K zvýraznění určité části textu používejte kurzívu, nikoli tučné ani podtržené písmo.

4. Internetové adresy nekopírujte přímo z internetu, ale opište je jako text.

5. Ilustrace – všechny dokumentární materiály (fotografie, diagramy, kresby, nákresy, mapy) musí být předloženy v elektronické podobě. Každá ilustrace je samostatným souborem s patřičným označením: (obr. 1), (fig. 1). Vyhovující bitmapové formáty ilustrací jsou TIFF, JPEG, BMP, GIF, EPS, PSD (minimální rozlišení barevných ilustrací je 300dpi při šířce obrázku alespoň 9 cm, u vyobrazení černobílých či ve stupních šedi je vhodné rozlišení až 600 dpi při výše uvedené šířce). Vhodné formáty vektorové grafiky: AI, EPS, PDF, WMF, CDR. Redakce nepřijímá ilustrace vložené do aplikace MS-Word. Pokud chce autor zařadit ilustrace s nedostatečným rozlišením (klíčové ilustrace v lepším rozlišení nemá), učiní tak po dohodě s redakcí. Ilustrace by měly být zaslány elektronicky (redakční systém, e-mail, úschovna atd.) nebo na CD společně s textovou částí, ve výše doporučeném rozlišení a formátu. Odkazy v textu na všechny dokumentární materiály musí být v následujícím formátu: (obr. 1), (fig. 1). Názvy příslušných souborů na CD musí mít stejné znění, jak je vyznačeno v textu (obr1.tiff). Popisky k obrázkům je vhodné dodat v samostatném souboru.

6. Tabulky a grafy budou předkládány v elektronické podobě jako samostatné soubory. Nejvhodnější je dodat je v podobě souboru vektorové grafiky (AI, EPS, PDF, CDR), případně jako soubory bitmapové grafiky (tiff, jpeg) s vysokým rozlišením. Akceptovatelné jsou tabulky jako samostatné soubory programu MS-excel a MS-word. V textu uváděné odkazy na tabulky a grafy musí být v následujícím formátu: (tab. 1), (graf 1). Názvy příslušných souborů na CD musí mít stejné znění, jak je vyznačeno v textu (tab. 1.xls). Popisky k tabulkám a grafům je vhodné dodat v samostatném souboru.

7. U obrázků, tabulek a grafů, jejichž autorem není autor příspěvku, je třeba za popiskem uvést autora, případně původní pramen (formou citace, která je pak uvedena jako plné bibliografické heslo v seznamu literatury; u fotografií se uvádí autor v každém případě): ... Pramen: Klíma 2010, 12. ... Foto: Jiří Němec. ... Kresba: Jana Černá.

Guidelines for contributors to the *Anthropologia integra* journal

The journal *Anthropologia integra* publishes scholarly texts (in the Czech, English, German and Slovak languages) which correspond to its interdisciplinary orientation.

The editor's office accepts manuscripts submitted via either the Open Journal System (for more information on registration process, see https://journals.muni.cz/anthropologia_integra) or e-mailed to the following electronic addresses: jmalina@sci.muni.cz and tmorkovsky@email.cz.

Peer review process

Contributions published in the *Anthropologia integra* journal are subjected to a peer review process. International peers will expertly review all submissions, with potential author revisions as recommended by reviewers, in order to publish papers that represent new, previously unpublished work, advance the state of knowledge of the field, and conform to a high standard of scholarly presentation.

Formal guidelines

In the journal, original papers, essays, notices, book-reviews and contributions popularizing science and art are published. The contributions' length shouldn't exceed 20 standardized text-pages (for original articles), 10 pages in case of other contributions and 3 pages for reports (a text-page is understood to contain 1800 characters including spaces).

Content and structure of contributions

1. Contribution's title

2. Author's name, full designation and affiliation (including contact and e-mail addresses).

2.1. Contributions submitted in the Czech or Slovak language should include a title and a short abstract in English in the range of 100–200 words (maximum 1500 characters), the abstract is preceded by the above-mentioned data – author's name and contact information; the abstract is followed by 5–8 keywords in English. The abstract and English keywords are followed by a Czech abstract and keywords (similar range).

2.2. Contributions submitted in a foreign language should include a title and a short abstract in Czech in the range of 100–200 words (maximum 1500 characters), the abstract is preceded by the author's name and contact information; the abstract is followed by 5–8 keywords in Czech. The abstract and Czech keywords are followed by an English abstract and keywords (similar range).

3. A short curriculum vitae is included at the end of the contribution in the range of 20–30 words (in the language of the contribution).

4. Notes to the text referring to bibliographical entries in the literature list are in round brackets – text references consist of the last name of the author/s or editor/s and the year of publication of the work, with no punctuation between them, followed by a comma, and a specific page, section, or other division of the cited work in the following form: ... (Boas 1908, 25–28).

5. Examples of basic bibliographical entries in the reference list:

5.1. book monographs

Aldred, Cyril (1971): *Jewels of the Pharaohs. Egyptian Jewellery of the Dynastic Period*. London: Thames and Hudson.

Vachala, Břetislav (2009): *Staroegyptská Kniha mrtvých. Překlad*. Praha: Dokořán.

5.2. proceedings papers

Störk, Lothar (1984): Rabe. In: Helck, Wolfgang – Westendorf, Wolfhart, eds., *Lexikon der Ägyptologie, V*. Wiesbaden: Otto Harrassowitz, 74–75.

5.3. journal articles

Borofski, Robert (2002): The Four Subfields: Anthropologists as Mythmakers. *American Anthropologist*, 104(2), 463–480.

5.4. electronic documents

Hoder, James (1999): The Development of Anthropology in the Sciences and Humanities. (online). <http://www.hoder.com>.

6. Footnotes placed on the same text-page should be numbered consecutively using the upper index and their text should contain references to respective sources (cited in the same manner as text references to the bibliographic entries).

7. Citations are to be quoted literally, word for word (including eventual mistakes in the original text followed by sic written in brackets) and always between quotation marks. If a part of the citation is to be omitted, insert round brackets with three dots inside.

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1. The manuscripts have to be created in the MS Word text editor or other compatible one and should have the file format denoted by file extension .doc or .rtf.

The authors should use font size 12 (points), 1,5 size vertical spacing and 2,5 cm offset on both sides. The pages are to be numbered at the bottom, in the centre.

2. Words at the end of the line should not be divided and aligned. "Hard-set" line ending (using the ENTER key) is to be used only to end a paragraph or title and subtitle.

3. To emphasize a particular text segment italic font should be used, bold or underlined types are to be avoided.

4. Internet links should not be copied off the web browser but rewritten as text.

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6. Tables and graphs should be submitted in an electronic form as separate files. Ideally they are to be submitted in the form of vector graphics files (AI, EPS, PDF, CDR), or possibly as bitmap graphics files (tiff, jpeg) with high resolution. Tables in the form of separate MS Excel and MS Word program files are also acceptable. References to tables and graphs in the text have to be in the following format: (tab. 1), (graph 1). File-names of the appropriate files on the CD have to bear the same marking as is given in the text (tab1.xls). Table and graph captions are to be submitted in a separate file.

7. In the case of illustrations, tables and graphs whose authorship is different from the author of the contribution, the name of the author of the graphics, or if need be the original source should be duly acknowledged (in the form of full citation reference listed as a full bibliographic entry in the literature list; in the captions accompanying the photographs and/or drawings, due credit to the author is mandatory): ... Source: Boas 2010, 12. ... Photograph: George Snell. ... Illustration: Jane Black.

