

## Did the XIII<sup>th</sup> c. Seljuk Sultanate Have Sculptural Automata?

### *Selçuklu Sultanlığı XIII. Yüzyılda Hareketli Heykele Sahiplermiydi?*

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**Abstract:** This article mentions examples of pre-Islamic automata and of those associated with the Caliphal court, a diplomatic weapon that had been employed by Islamic rulers long before the accession of the Abbasid Caliph al-Muqtadir (908-932), as well as those belonging to the Ayyubids, the Artukids and of the adjacent East Roman courts, recorded in manuscript illuminations and in literary sources. In consequence of the use of automata at adjacent courts both Muslim and East Roman, as also the tradition recorded in the XVII<sup>th</sup> c. by Evliya Çelibî of there being Seljuk speaking lions either side of the entrance to the Aksaray Palace, together with the probability that a group of figures painted on the 8-pointed star-tiles employed as revetments in XIII<sup>th</sup> c. Seljuk Palaces and pavilions, as also some of the silhouette figures of the traditional shadow play, also represent types of XIII<sup>th</sup> c. Palace automata, including the armies of the Prophet Süleyman/Solomon, depictions of Jinn, human headed birds and human headed lions etc., the question raised in the title of this article is answered in the affirmative. The suggestion is made that the majority of these moving, sometimes speaking Islamic statues were modeled upon examples at the Caliphal court and that some of the contemporary Latin Christian false assertions of Muslim idol worship were due to some knowledge of these Islamic sculptural automata.

**Keywords:** Islamic statues, Seljuk figural sculpture, automata

**Özet:** Bu makale Halifelik saltanıyla ilişkili olan ve İslam öncesi hareketli heykel örneklerinden bahsetmektedir. Bunu yaparken Abbasi Halifesi El-Muktedir'in (908-932) tahta çıkışından uzun zaman evvel İslami yöneticiler tarafından kullanılmış olan bu diplomatik silahtan ve bununla birlikte el yazmaları tezhiplerinde ve edebi kaynaklarda kayıt altına alınmış Eyyübîler ve Artuklulara ve mücavir Doğu Roma saraylarına kadar benzer örneklere değinilmiştir. Hem Müslüman hem Doğu Roma mücavir alanlarındaki hareketli heykel kullanımı aynı zamanda, 8 yıldızlı çiniler üzerinde tasvir edilen bir grup figürün XIII. yüzyıl Selçuklu saraylarında ve köşklerinde kaplama olarak kullanılmış olması ihtimaliyle birlikte Evliya Çelibî tarafından XVII. yüzyılda Aksaray Sarayı'nın girişinin her iki tarafında Selçuklu dönemine ait konuşan aslanlar olduğu dile getirilmiş, benzer şekilde geleneksel gölge oyununun bazı silüet figürleri, Süleyman Peygamber'in ordularının ve cinlerin, insan kafalı kuşların ve insan kafalı aslanların vs. tasvirlerini içeren XIII. yüzyıl saray hareketli heykel türlerini de temsil etmekte olup bu makalenin başlığında ortaya çıkan soru olumlu yönde cevaplanmaktadır. Ayrıca bu tarz hareketli, bazen ise konuşan İslami heykellerin büyük bir kısmının Halife ikametgahlarındaki örnekler üzerine modellenmiş olduğu ve Müslüman putperestliğine yönelik bazı modern Latin Hristiyan yanlış savların nedeninin bu İslami hareketli heykellerle alakalı bazı kanaatlar olduğu öne sürülmüştür.

**Anahtar kelimeler:** İslami heykeller, Selçuklu biçimsel heykelciliği, hareketli heykeller

*“Against the walls were ranged figures, dressed as if they were alive, which moved their arms and legs astonishingly, and spoke and sang by some concealed device” (Mardrus-Mathers 1996, Vol. 1, 362, 49<sup>th</sup> Night).*

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Sculptural figural automata formed a part of the exhibition of a ruler's power and their use certainly predated the arrival of Christianity and then Islam in the Middle East by more than a thousand years.

Record of one of these earlier automata that was seen by Muslims dates from the first century hicra/685-705 A.D. and survives in Masudi's X<sup>th</sup> century account of its discovery:

*"Among the strange anecdotes on this subject is one told by Yahya Ibn Bukayr. While 'Abd al-Aziz Ibn Marwan was governing Egypt in the name of his brother (the Caliph) 'Abd al-Malik (ruled 685-705), he was visited by a man who wished to give him some information. 'Abd al-'Aziz asked him what it was about, and the man said, "Under such and such a dome there is a great treasure!" 'Abd al-'Aziz said, "What evidence do you have of that?"*

*"A pavement of different-coloured marbles will appear to us not very far down. Digging further, we have to remove a door made of bronze, above which is a golden column. On top of the column there is a golden cock; his eyes are two rubies worth more than the revenues of the entire world. His wings are encrusted with rubies and emeralds, and his claws grip plates of gold on top of the column".*

*'Abd al-'Aziz immediately commanded him to be given several thousand dinars to pay the wages of his labourers hired for the excavation and all the other necessary work.*

*There was a large tell at the site and the men opened a vast trench in the earth, in which the marble slabs which the man had mentioned were brought to light, thus sharpening the greed of 'Abd al-'Aziz, who immediately made over to him new sums of money and increased the number of workmen.*

*As they went on digging, they uncovered the head of the cock. His appearance was heralded by a light, swift and intense as lightning, which flashed, shining and brilliant from his ruby eyes. Then the wings and then the claws of the cock appeared. Next, they found, all about the column, a colonnade made of different kinds of stone and marble. It was composed of arches and, above the arched doors, niches with statues and figures of people in bronze and gold. Then came sarcophagi of stone whose lids were battened down and enclosed in nets, locked with rods of gold.*

*'Abd al-Aziz Ibn Marwan came on horseback to visit the scene of the excavations and look at the discoveries. One of those present, less patient, set foot on the steps of a staircase cast in bronze which led down to the finds. When he set foot on the fourth step, two enormous swords sprang out to right and left of the staircase, meeting at the point where the man stood and slicing him into pieces. His body rolled to the bottom of the staircase. When a part of the corpse hit a certain step, the column shook, the cock gave a strange whistling cry, which was heard at a great distance, and flapped its wings. Terrifying sounds caused by a variety of*

*devices and instruments were heard from beneath him. As soon as an object fell on the steps or only touched them, all who were present slid to the bottom of the excavation. The labourers engaged in digging and removing the earth, those who were supervising and organizing the work and those overseeing the workmen – some two thousand in all - perished to a man.*

*‘Abd al-Aziz was seized with terror and cried, “Here are ruins of the most marvelous kind to which all access is forbidden! We seek refuge in God from the evil therein!”* (Masudi, 2007, 54-5, completed by 947, reading like a record of a description of some real VII<sup>th</sup> c. version upon which the 1989 Stephen Spielberg film, *Indiana Jones and the Last Crusade*, with its sequence of sword automata springing out of the walls etc. was based).

There is in fact nothing inherently improbable, or even particularly strange in this account of the excavation of a mound in Egypt, probably a mound over of a site like the Serapeum of Iskanderiyya-Alexandria, a place sacked in the IV<sup>th</sup> century A.D., where the temple walls were covered with sheets of gold, silver and bronze, with gilded column capitals in its colonnade and with the column of Diocletian (Pompey’s column) standing in its quadrangle; that is, of the discovery of a flight of steps leading to an agora with, in its center, a column surmounted by a work of sculpture, and with the agora surrounded by an arcade containing statues in niches in the arcades, all these, constructed at varying expense to varying degrees of finish, were common features of Roman and East Roman cities, and that some of these works of sculpture may well have been automata, as is recorded in both contemporary and by later sources, as for example by the Crusader Robert de Clari, who, in his eyewitness account of the 1204 Latin Crusaders’ sack of Constantinople, writes, *“And the hippodrome with its wealth of statues, which (Clari assures us) of old moved by magic, but which nowadays never work”* (De Clari, 1994, XC, 45), and these metal Ancient, Roman and East Roman statues, including sculptural automata *‘which of old moved by magic’*, were melted down by the Latin Catholic Crusaders in 1204.

A further account indicating the survival of these earlier sculptural automata is given in the *Thousand Nights and One Night*, in the Tale of the Mysterious City of Brass. The Mysterious City of Brass was found during the search for the jars containing the Jinn confined within these vessels by the seal of the Prophet Süleyman/Solomon (It may be that the jars sealed with the seal of Süleyman/Solomon were employed in the tales of the *Thousand Nights and One Night* as a symbol, Pandora-like, referring to the wisdom-knowledge of the ancients, and may, one can speculate, have had its origin in the knowledge of finds of texts in Greek and Hebrew stored in clay vessels possibly sealed with this seal of Süleyman/Solomon device), and this discovery was likewise reported as occurring during the reign of the Omayyad Caliph ‘Abd al Malik Ibn Marwan (65-86 A.H./685-705 A.D.), who was himself responsible for the construction of the Dome of the Rock on the site of the Prophet Solomon’s former Temple. This relation involves the discovery of an entire intact city in the desert overwhelmed by some catastrophe; like the reports of cohorts of Roman troops still standing dressed with weapons and armor, partially exposed in the sand dunes of the depths of the Libyan Desert which were seen during the course of the Second World War before they were once again buried in the dunes of shifting windblown sand. This account records two armed slaves (which were sculptural automata) standing beside the bed of the princess within the palace in the City of Brass (Meaning in all probability the City of Automata, as brass seems to have been employed as a synonym for automata in this work, possibly because of the use of brass in automata, or because of it being a compound alloy of copper, and/or tin and zinc which resembles but is not gold, as an automata

resembles but is not the object it represents):

*‘To right and left of the bed stood two slaves, one white the other black, armed each with a naked sword and a steel pike* (The black and the white slaves on either side of the princesses bed, can remind of the late black and the white life sized concubine slave automata in the audience hall of the Fatimid Vizier al-Afdal Shahanshah (d.1121) in XII<sup>th</sup> c. Cairo. These were 8 life-size female sculptures wearing splendid clothes and bedecked with jewels, 4 black and 4 white, called amber and camphor respectively, that bowed low to the Vizier on his entrance to his hall, as he crossed the threshold, and then, following this ceremonial entrance, when he sat down, they then stood upright again, forming an impressive entrance for the Fatimid Vizier in front of his guests. One part of the mechanism, the bowing action was initiated through a device by the threshold at the entrance, with the return of these sculptures to the upright position through a mechanism attached to the Vizier’s seat, probably initiated by the descending of the Vizier’s own bodyweight. See: Rice, D. S. 1958, citing Ibn al-Muyassar’s *Akhbar Misr*). *At the foot of the bed was to be seen a strip of marble on which these words were engraved:*

*I am Tadmurah, Princess of the Amalekites. This city is my city. O you who have come so far, take all which pleases you; but ah, beware! If my beauty and your lust draw you to lay a violating hand on me!*

*Then said Talib Ibn Sahl: ‘O Amir, nothing in this palace can compare for beauty with this young girl. It would be a pity not to take her to Damascus and offer her to the Kalifah. He would prefer such a gift to all the jars of Afarit in the world.’ ‘We must not touch the princess,’ answered Musa. ‘To touch her would be to offend her and to draw down calamities upon ourselves.’ But Talib answered, ‘O Amir, princesses do not mind that sort of violence, whether they are awake or asleep.’ So saying, he approached the girl and would have lifted her into his arms; but he fell dead, pierced by the swords and pikes of the two slaves, through the heart and through the head (Mardrus-Mathers 1996, Vol. II, 302-303, 345<sup>th</sup> and 346<sup>th</sup> Nights).*

And there was also that automata recorded by Procopius of Gaza c. 465 - 528 A.D., early in the VI<sup>th</sup> c. who describes a water-driven clock automata erected in Gaza, Palestine, that including automata representing the 12 Labors of Hercules, signifying the 12 hours of daylight:

*“A remarkable clock in Gaza which struck the hours and had elaborate automata. At each hour a figure of Heracles emerged from one of 12 doors, carrying a object representing one of his twelve labours, and an eagle placed above him bent down to place a victor’s garland over his head, to signify the successful completion of the labour in question. After that the figure of Heracles retreated again behind the panel from which it had appeared”* (Wilson, 1996, 31; likewise, Kazhdan, 1991, 947; Stark, 1852, 601-602), which, given the importance of this trading city, was certainly seen and known by the Arabs of the VI<sup>th</sup>-VII<sup>th</sup> centuries.

The Arabs were probably also were aware, or at least had some partial knowledge of the bronze statues of the Tritons on top of the second section of the Pharos of Alexandria, which, although not automata themselves, held *buccinae* that sounded for the entrance of ships into the harbor, associating a statue of a human figure with a sound, produced through a mechanical device disguised as issuing from a conch shell which was held in the Triton’s hands (Giardina, 2010,

59, 63).

Like clock automata and other mechanical devices including those built for warfare, Islamic palace sculptural automata were designed and employed as an expression of power, of the power of the ruler in the world of Islam, to reveal the ruler as being the “*Second Süleyman*”, having power over the Jinn, as the Jinn worked making sculptures and other devices for the Prophet Süleyman (Holy Koran, *Sura Saba*, 34: 13); expressed as control over the jinn-like capabilities of highly skilled designer-engineer-craftsmen, to shock, to amaze and disorientate a foreign envoy (ambassador) or other person brought into the presence of the ruler, by the strange, seemingly out of this world forces that lay at the ruler’s command. These works of moving, sometimes speaking sculpture, as well as being self-evident indications of the Caliph or Sultan’s control over the forces of the jinn, of their power in construction, engineering, science and technology (See, Duggan, 2009), in the making of all that is relatively marvelous, were also the highest expression of Islamic sculptural art, works of *aja’ib*, these works were marvels and there seems to be little reason to doubt that during the expansive and wealthy period of the Seljuk Sultanate during the first four decades of the XIII<sup>th</sup> c. there were sculptural automata standing in at least some of the halls of audience in some of the Seljuk palaces, most probably in the audience hall in the Konya citadel, either in that *iwan* which is reported to have rivaled the *Eyvan-i Qisra*, the Sassanid arch of the VI<sup>th</sup> century palace at Ctesiphon (Kennedy, 2008, 121, citing Tabari’s *Ta’rikh I*, 2441, 2451, where the paintings on the walls survived into the X<sup>th</sup> c., in addition to the Sassanid stucco-plaster figural sculptures (*tamathil*) in the area converted into a mosque by S’ad b. abi Wakkas, conqueror of Ctesiphon and member of the 6 member council, “*al Sura*”, appointed by the Caliph Omar (633-44) to nominate Omar's successor as Caliph of Islam and who later was the patron saint (Pir) of the Ottoman Guild of Archers), or in the separate royal audience hall, or *divanhane-i sultani* in the Konya citadel (Bates 1994, 260) or, equally within the *divanhane-i sultani* erected within the walled Antalya citadel-palace complex above the harbor where foreign envoys came and went (Bibi 1996, c. I, 355) during the first half of the XIII<sup>th</sup> c., with envoys exchanged with Cypriot and with Ayyubid and Mamluke rulers, and both the Ayyubid and the Mamluke rulers are themselves recorded as having possessed automata in their own palaces and territory, as automata were an expected part of the exhibition of ruler-ship and power at this time.

*In these Seljuk divanhane-i sultani with their revetments of 8-pointed and pointed cross tiles, some reflecting light, not just from the glaze but from gold luster tiles, of stucco work, within this richly painted and glittering environment including iridescent silks and other reflective textiles worn by the officials, sculptural automata were almost certainly set up for the reception of the Latin and other envoys (ambassadors), as these wonders were both an indication of the ruler’s power and a longstanding weapon employed in the diplomacy of the civilized. The debased versions of which are the propagandas concealed today in celluloid and electronic imagery, the numerous and multiple virtual worlds of moving images vicariously visited by many in the 20<sup>th</sup> and 21<sup>st</sup> centuries through cinema, television, video and the computer, compact disc and internet.*

Palace automata were a diplomatic weapon that had been employed by Islamic rulers long before the accession of the Abbasid Caliph al-Muqtadir (908-932) whose palace contained a famous *dar al-shajarah*, a Hall of the Tree, containing a gold and silver tree with 18 branches

that on command rose up from a tank through mechanical devices to fill the cupola above the tank (Hitti, 1991, 303, citing Khatib, Vol. I, 100-5; Abu-al-Fida', Vol. II, 73; Yaqut, Vol. 2, 520-1; also idem, 417; 419-20; Kennedy, 2004, 154), which was perhaps lined with silver plates, like that constructed in the throne room at Samarra of the Caliph al-Mutawakkil (847-61). This tree of gold and silver in the *dar al-shajarah* weighed 500,000 drams, and was engineered to at times sway and its metal leaves rustled. In its branches were birds of many species made from the same precious metals, silver and gold, birds-symbol of the spirit-that sang (On the symbolism of "the language of birds", Holy Koran, *Sura An-Naml*, 27:15, "And Solomon was David's heir and he said: O men we have been taught the language of the birds, and all favors have been showered upon us", see also for example, Faridud-Din Attar (c. 1120-1220)'s *Mantiq ut-Tayr* or, "The conference of the birds", on the language of the birds, the language of peoples' spirits), the birdsongs made through automatic devices as Ghada al-Hijjawa al-Qaddumi recorded, "When the two envoys entered, they kissed the ground, gave their greeting, and stopped at the place indicated by Nasr the chamberlain. Al-Muqtadir gave out the order for the opening of the cupola (qubbah) and the working of the tree, which came out of the ground by means of various mechanical devices until it filled the cupola. The fountains, gushing forth rose water and musk, were turned on, and the figurines (tamathil) of birds perching on the tree chirped" (Translation, Fairchild Ruggles, 2011, 110-111). The tree was crowned with gemstones carved in the shape of fruits with gold birds, perhaps seemingly pecking at this succulent fruit. On each side of this tank containing the tree stood statues of 15 horsemen, 30 life sized statues of horsemen, statues dressed in brocade and armed with lances, horsemen automata that constantly moved as though in combat. This complex of automata in this hall of the tree, was prepared and was seen by the envoys of the East Roman (Byzantine) Emperor Constantine VII (913-59), John Rhadinos and Michael Toxaros, who were concerned in 917 with the ransom and exchange of East Roman prisoners and these envoys were kept waiting for two months (Kennedy 2004, 153, citing Hilal al-Sabi (d.1056)'s account, from that recorded by one of al-Muqtadir's grandsons) so that everything they would see on their guided tour of the Abbasid palace could be properly prepared, including the laying of 22,000 carpets and 38,000 curtains, and what the envoys saw after their two months wait for their audience with the Caliph truly astonished them.

Amazement and wonder would have been felt by these envoys at the start of the 10<sup>th</sup> century at the sight in the *dar al-shajarah* of these apparently alive, metal, moving, clothed bejeweled and life-sized statues, some on horseback, with birds in a glittering gold tree bearing precious fruit, birds speaking the language of birds but fashioned from metal, in a scented world that overwhelmed the senses (It is worth noting that in the 1001 nights in the Tale of Alaiaddin and the Lamp, there seems to be a reference to this Abbasid tree type of automata, "Presently, descending the ladder he returned to the garden where he fell to gazing at the trees where upon sat birds glorifying with loud voices, their Great Creator. Now he had not observed them as he went in, but all these trees bare for fruitage costly gems; moreover each had its own kind of growth and jewels of its peculiar sort; and these were of every colour, green and white, yellow, red and other brilliant hues and the radiance flashing from these gems paled the rays of the sun in forenoon sheen."

There is further reference to a type of metal tree sculpture:

"Master William of Paris (a French jeweler captured by the Mongols in Hungary) has made for him (the Great Khan) a large silver tree, at whose roots are four silver lions each having a pipe and all belching

*forth white mares' milk. Inside the trunk four pipes lead up to the top of the tree and the ends of the pipes are bent downwards and over each of them is a gilded serpent, the tail of which twines round the trunk of the tree. One of the pipes pours out wine, another caracosmos, that is the refined milk of mares, another boal, which is a honey drink, and another terracina, rice wine. Each of these had its silver basin ready to receive it at the foot of the tree between the four pipes. At the very top he made an angel holding a trumpet; underneath the tree he made a crypt in which a man can be secreted, and a pipe goes up to the angel through the middle of the tree... Outside the palace there is a chamber in which the drinks are stored, and servants stand there ready to pour them out when they hear the angel sounding the trumpet. The tree has branches, leaves and fruit of silver.*

*And so when the drinks are getting low the chief butler calls out to the angel to sound the trumpet. Then hearing this, the man who is hidden in the crypt blows the pipe going up to the angel with all his strength, and the angel, placing the trumpet to his mouth, sounds it very loudly. When the servants in the chamber hear this each one of them pours out his drink into its proper pipe, and then they pour them out from above and below into the basins prepared for this, and then the cupbearers draw the drinks and carry them into the palace” (Jackson, 1990, 209-210).*

Later it is reported there was a tree with gold and silver branches in the Monastery of Mar Gabriel in the Tur Abdin until it was removed by Tamurlane (Parker, London, 2010, 303); and it is noteworthy that Timurid rulers at Samarkand had another tree, as tall as a man, with turquoises, emeralds, rubies, sapphires and pearls shaped like fruit, with gold birds eating the fruit, that was seen by Ruy Gonzalez de Clavijo in 1405 d. 1412, Castilian envoy to Timur's court who records this Golden Tree, “*Standing and set beside the table was to be noticed a golden tree that stimulated an oak, and its trunk was as thick as a man's leg, while above the branches spread to right and left, bearing leaves like oak leaves. This tree reached to the height of a man, and below it was made as though its roots grew from a great dish that lay there. The fruit of this tree consisted in vast numbers of balas rubies, emeralds, turquoises, sapphires and common rubies with many great round pearls of wonderful orient and beauty. These were set all over the tree while numerous little birds, made of gold enamel in many colours were to be seen perching on the branches. Of these some with their wings open seemed ready to fly and some with closed wings seemed as though they had just alighted on the twigs from flight, while some appeared about to eat the fruits of the tree, and were pecking with their bills at the rubies, turquoises and other gems or at the pearls which so to speak grew from the branches” (Le Strange, 1928, 154).*

Further descriptions of these palace type of sculptural automata are given in the *Book of The Thousand Nights and a Night*, in the Tale of Jūdar and his Brethren, where there are automata figures which are described as being, “*the semblances without life*”, as, “*bodies without souls*” (In Sir Richard Burton's translation of this tale, Burton, 1994, 540, 542), as, “*phantoms*”, these figural automata included: a lion, two dragons, a horseman riding a mare with a lance, a man with a sword, a negro and an archer, all were automata of known types, all guarding the entrances to the cave housing the treasure of al-Shamardal. The Moor magician, ‘Abd al-Samad, says to Jūdar the fisherman:

*“After the third knocking you will hear a voice cry out from within: ‘Who knocks at the door of the treasure yet does not know how to loose the enchantment?’ When you answer: I am Jūdar, son of Umar, the fisherman of Cairo!’ The door will open and a man (will) appear on the threshold with a sword in his hand. He will say: ‘If you are truly that man, stretch forth thy neck, that I may cut off your head.’ You must stretch it out fearlessly; for then, even if he (the automata) raises the sword above you, he will fall at your feet, a body without a soul. You will receive no hurt; but if you refuse, through fear, he (the automata), will most certainly kill you (An automata of this type, a sword wielding figure, sometimes depicted as a negro, (Figs. 6, 7) is recorded in copies of the XIII<sup>th</sup> c. work of al-Jaziri, forming part of a clock automata, where the figure extinguishes a candle with his sword, S. Tekeli, *et alii*. 2002, 96-101, şekil 1.61, 2.74).*

*“When you have broken the first magic, enter and you will find a second door on which you must knock once and very loud. Instantly, on the sill of it, will appear a rider menacing you with a tall lance (like the lancer figures in the Abbasid Caliph’s dar al-shajarah see below). When he says: ‘What brings you to this place, where neither man nor Jinn may set his feet?’ You must answer boldly baring your breast to the point of the lance. You will receive no hurt and the rider will fall at your feet, a body without a soul. But if you recoil he will kill you’ (See for references to the lancer figure automata in Bagdad on top of the dome of the Caliph al-Mansur’s Hall of Audience, and recorded in the *1001 Nights* etc., Duggan, 2009; 2012, 67).*

*‘You will then come to the third door, which will be opened by an archer aiming an arrow at you from his bow: thrust your breast forward as a mark, and he will fall at your feet, a body without a soul. But if you hesitate he will kill you.*

*‘Go further and, from the fourth door, there will leap out upon you a terrible lion with wide jaws, and make as if to eat you. Put your hand into its mouth and he will fall dead at your feet, without having done you the least harm.*

*‘The fifth door will be opened by a negro who will ask you your name. Answer, ‘I am Jūdar,’ and he will say: ‘If you are indeed that man, try to open the sixth door.’*

*‘At the sixth door you must cry: ‘O Jesus, command Moses to open unto me.’ The door will swing wide and two enormous dragons leap upon you with open mouths, one on the right hand and one on the left. You must fearlessly stretch out a hand to each; before they can bite, they will roll powerless at your feet. But if you show fear your death is certain.’... ‘O Jūdar,’ answered the Moor. ‘The guardians of the doors are but phantoms. You can be quite easy for them’” (Mardrus-Mathers 1996, Vol. II, 567-9, 473<sup>rd</sup> to 476<sup>th</sup> Night. Reminding perhaps of the figure carved on the 1221 ‘Talisman Gate’ of Bagdad, holding the tongues of dragons in each hand).*

With both the Abbasid Caliphal court and the East Roman Imperial court at Constantinople at times employing automata, as also the Ayyubids at Damascus, a family to whom the Seljuk Sultan Alaed-Din Keykubat I was related to through his marriage in 1227 to Gaziye Hatun (Uyumaz, 2003, 70ff. The daughter of al-Malik al-‘Adil I Muhammed, Sultan of Egypt 1200-18, Damascus 1196-1218 and Aleppo 1183-6), the mother of two, ‘Izzed-Din (‘Izzed-Din was Alaed-Din Keykubat’s acknowledged successor, but his eldest son Giyathsed-Din and his Atabeğ eliminated both his half brothers to allow him to seize the throne after Alaed-Din



Keykubat I died in 1237) and Rukned-Din, of his three sons – and there was for example, on public display in Damascus, after the early X<sup>th</sup> c. monumental clock installed by the entrance in the western part of the southern wall of the mosque (Bāb al-Ziyāda) described by Benjamin of Tudela in 1168 as: *“Here is a wall of crystal glass of magic workmanship, with apertures according to the days of the year, and as the sun's rays enter each of them in daily succession the hours of the day can be told by a graduated dial”* (Benjamin of Tudela, 1907, 47). Given the remarks made about sculpture in an Islamic context, its worth noting that he also records in the court of the Palace of the Sultan Nur-ed-Din at Damascus, that: *“there is a gigantic head overlaid with gold and silver, and fashioned like a bowl with rims of gold and silver. It is as big as a cask, and three men can enter therein at the same time to bathe.”* idem 47, the probable re-use of a gigantic Roman head, hollowed out and employed as a bath after having been overlaid/covered over and fitted with silver and gold inlaid (?) rims to the tub) had for some reason stopped functioning in the middle of the XII<sup>th</sup> c., (Flood, 2001, 121) in any event, it was supplanted by a more spectacular clock automata, the monumental clock which was attached to the Jayrun Gate - *Bab al-Jabiye* of Damascus in 1164 (Burns, 1999, 99), designed and built by the engineer Muhammad al-Sa’ati, *“consisting of a pair of brazen falcon clock automata, that every two hours dropped brass balls from their beaks into brass cups, from where the balls returned to the interior of the device”* (Newby, 1983, 35. Recorded in 1206 by Jabir Ibn al-Sa’ati whose describes this clock automata that was built by his father, Nasr, 1976, 145; Hassan-Hill, 1986, 57). This was a development of Archimedes’s device for ejecting balls from the beak of a bird to mark the passage of time (Hassan-Hill, 1986, 56) and this device, a water clock (Another water clock automata was recorded in Fez in 1317, with 13 consoles and bronze bowls rung to mark the hours, Blair, & Bloom, 1995, 122), was seen by Ibn Jubayr in 1184 (*“On your right hand, coming out of the Bab Jairun, in the wall of the portico fronting you, is a gallery, which has the form of a great archway, and set round it are arches of brass, in which open small doors, in number according to the number of the hours of the day. Through the working of a piece of mechanism, when one hour of the day is passed, there fall two weights of brass from the mouths of two falcons fashioned in brass, who stand above two brazen cups, set one under each of the birds. One of the falcons is below the first of the doors, and the second below the last of them. Now the cups are perforated, and as soon as the balls have fallen, they run back through a hole in the wall to the gallery. The falcons appear to extend their necks when holding the balls, leaning towards the cups, and to throw the balls off with a quick motion, so wondrous to see that one would' imagine it was magic. With the falling of the two balls into the two cups, there is heard a sound (as of striking) a bell; and thereupon the doorway, which pertains to the hour that has elapsed, is shut with a brass door. A similar action goes on for each of the hours of the day; and when all the hours of the day are passed, all the doors are shut. When all the (day) hours are passed, the mechanism returns to its first condition. For the hours of the night they have another mechanism. It is this in the bow of the great arch, which goes over the (small) arches (with the doors), just mentioned, are twelve circles cut out in the brass, and over each of these openings, in the wall of the gallery, is set a plate of glass. This is all so arranged as to lie behind the doors (for the day-hours) above mentioned. Behind each glass is a lamp-glass, in which is water set to run for the space of one hour. When the hour is past, the light of the lamp, coming down, illumines the glass, and the rays shine out of the round opening in front of it, and it appears to the sight as a red circle. This same happens to each circle in turn, till all the hours of the night are passed, and then all the circles have red light in them. There are eleven workmen (belonging to the Mosque) who attend to this gallery, and keep the mechanism in order, and see to the opening of the doors, and the running back of the weights into their proper*

places. *This (piece of mechanism) is what the people call Al Mikaniyyah*". Ibn Jubair's account, given when he reached Damascus in July, 1184 (Second Rabi' A.H. 580), Le Strange, 890, 249-250) and was recorded in Badi' al-Zamman Isma'il Ibn Razzaz Abu'l-'Izz al-Jaziri's book, "A compendium of theory and useful practice in the mechanical arts", al-jami bayn al-ilm wa'l-mal al-nafi fi sin'at al-hiyal of c.1206 (İstanbul T.S.M. Kitaplığı, Ahmet III, 3472, s. 9b; Öney 1992, res. 125, s.187) (Fig. 1), and a part of this sculptural automata was still functioning into the XIV<sup>th</sup> c. when Ibn Battutah records it in 1326 thus: "To the right as one comes out of the Jayrun door, which is also called the "Door of the Hours", is an upper gallery shaped like a large arch, within which there are small open arches furnished with doors, to the number of hours in the day. These doors are painted green on the inside and yellow on the outside and as each hour of the day passes the green inner side of the door is turned to the outside and visa versa. They say (My italics, emphasizing Ibn Battutah's reference to those unaware that this was an automata, there were no men inside manipulating the falcons, but the men apparently nearly 200 years later still, 'keep the mechanism in order, and see to the opening of the doors, and the running back of the weights into their proper places') that inside the gallery there is a person in the room who is responsible for turning them by hand as the hours pass" (Gibb, 1939, 66-7, it seems the falcon automata were still functioning in the XIV<sup>th</sup> century). This figure responsible for opening and closing the doors marking the hours was unrelated to the falcons which were automaton, as the drawings and text concerning this clock automata made by al-Jaziri's record. As also the dispatch of a jeweled astronomical tent in which the signs of the sun and moon moved by clockwork to tell the time by day and night which was sent as a diplomatic gift from the Ayyubid Sultan to Emperor Fredrick II (Stupor Mundi 1194-1250) (Barbour, 1974, Vol I, 89-90. The silver planetarium sent by the Sultan of Damascus to Fredrick, Mack Smith, 1969, 61), - and with sculptural automata almost certainly a feature of the adjacent Artukid ruler's palace at Diyarbakır, given the Artukid employment of Abu'l-'Izz al-Jaziri, *nakkaş*, engineer and designer of automata and other marvels (Fig. 2), including the absolutely wonderful mosque doors of Cizre today in the TIEM Istanbul; when combined with the longstanding association of the Islamic ruler with the "second Solomon", and thereby with control over the 4 armies, of people, birds, animals and jinn, and with the founder of the Seljuk Sultanate of Rum himself called Süleyman, brought to Anatolia on the "breath of the Prophet Süleyman" as Ibn Bibi relates (Bibi 1996, I cilt, 20, where Ibn Bibi equates the arrival of the Seljuk house to the wind of the Prophet Süleyman, as in the Holy Koran, *Sura Al-Anbiya*, 21:81; *Sura Sad*, 38:36), when combined also with the repeated deliberate Rum Seljuk use of the symbolism attached to the Prophet Süleyman in the 8 pointed "seal of Süleyman" form in their palace-*köşkü*-pavilions tile-work revetments (Duggan, 2006, 206-8), a design also applied to other materials (Eg. in the design of one of the Konya carpets, Öney 1992, 110; in the painted designs on the wooden ceiling of the Eşrefoğlu Mosque, Beyşehir, Öney, 1992, res. 105; on the carved wooden doors from the Alaed-Din Mosque, Ankara, Öney, 1992, res. 99; on the cut tile work of the mihrab of the Sahib Ata Mosque, Konya of 1258; as on the stone carved surround of the *kitabe* to the left of the entrance to the Alaed-Din Mosque, Konya, as on the portals of the Gök Medrese, Sivas and is the design framing the north portal at Divriği), as also in use of the 6 pointed "seal of Süleyman" device in a gold leaf design applied to some of the hexagonal tiles in the Karatay Medrese of 1258 (Öney, 1992, res. 62. This same 6 pointed star is also for example in the cut tile-work design in the apex of the brick dome of the Malatya congregational mosque of 1247 with "Muhammad" in kufi script on each bar, the implication of this combination being that the Prophet Muhammed was the successor to the Prophet Süleyman, that the Prophet Muhammed was Süleyman's seal, see also, Duggan, 2012/2, 95-6, fig. 11; as also on the cut tile-work of a

sanduka lahit in the Mevlana Türbe, Konya as in the cut-tile mihrab of the Akşehir and the Kazimkarabekir congregational mosques and also on the mihrab of the Sirçali Masjid, Konya.), as elsewhere in metalwork (Eg. Işin, 2001, 73, in the center of the interior of a XIII<sup>th</sup> c. bronze vessel; on a dirhem minted by Sultan Giyathsed-Din Keyhüsrev II, as also on many of the coins minted by the Ala'iyе Beylik, Kürkman ve Diler, 1981, and on its flag, as also on the coins of the Menteşe Beylik and on the flags of Samsun and of Antalya in the XIV<sup>th</sup> c. and on much early Ottoman coinage), on carved stone (In the portal of the Çifte Minareli Medrese of Sivas of 1271-2; in the carving marking the transition to the dome in the Alaed-Din Mosque of 1223 in Niğde, as later carved on the Hudavendigâr turbe, Niğde, and on the portal of the Alaed-Din Mosque at Korkuteli), incised in ceramics (Arik, 2000, res. 238; Öney, 1992, res. 90) and stamped on the leather of book covers (Eg. Arıtan, 2001, 512, Resim 6) and with this device almost certainly employed by the Seljuk *malik al-sawahil*, *Lord of the Coastlines*, given its appearance on the coinage and on the flags of the later XIV<sup>th</sup> c. coastal Beyliks in the former territory of the *malik al-sawahil*, and it was perhaps employed by all of the emirs of the Second Süleyman, that is the mark of the emirs of the Seljuk Sultan was the 6 pointed “*seal of Süleyman*” device, as this device appears on many buildings and other works constructed on behalf of Seljuk emirs, with Seljuk rulers described by their contemporaries as “*The Second Süleyman*” (Bibi, 1996, c.1, 232; 238, fn 594, where Sultan Alaed-Din Keykubat I is described as “a second Sülayman” sitting on his 4 cushions on his throne and his Vizier as a second Assaf (Ibn Barkhiya), to receive the envoy from the Abbasid Caliph. Ibn Bibi also describes the Sultans Kılıç Arslan II, Giyathsed-Din Keyhusrev I and Izzed-Din Keykavas I as like the Prophet Süleyman, Bibi 1996 c. 1, 79, 89-90, 181, as also Sultan Giyathsed-Din Kethusrev II and his wife like “*Belkis*”. For a XIII<sup>th</sup> c. commentary on Solomon and Bilkis-Belkis, see the chapter on Solomon in Muhyi-d-Din Ibn Arabi’s *Fusus al-Hikam*, written in Damascus in 1229, Culme-Seymour, 1975, 83-95; also Chittick 1983, 1373; 1747, from Jelalad-Din Rumi’s *Divan-i Shams-i Tabrizi*: “*Today I am Asaf Solomon’s vizier, sword and firman in hand – I will break the neck of any who are arrogant before the king*” and, “*Love has made me Solomon and my tongue Asaf – how should I be tied to all these remedies and incantations?*”. Likewise in the XIV<sup>th</sup> c. the rulers of Fars adopted the title, “*Heir to Solomon’s Kingdom*”, Blair & Bloom, 1995, 23) - as was earlier applied to Sultan Mahmud of Gazna (An allusion to this Sultan as Solomon drawn by Badi uz Zaman al-Hamadhani (d. 1009), Browne, 1997, Vol. II, 113) and to the Great Seljuk Sultan Sanjar (An allusion to this Sultan as Solomon drawn by the poet Khaqani (1106/7-1185), Browne, 1997, Vol. II, 396) - there consequently seems to be no reason to doubt that sculptural automata, physical evidence of the jinn who were working for the ‘*Second Süleyman*,’ were employed about the throne and in the audience hall of some XIII<sup>th</sup> c. Seljuk palaces for the reception of Latin and of other envoys.

The illusion created by a display of life sized moving and sometimes speaking figures in an environment designed to overwhelm the senses with moving imagery, reflections, glinting gold, silver and precious stones and glass and glazed ceramics within a scented environment, must have made a truly awesome impact upon the contemporary witness, far greater even than the work of an illusionist in Konya described by Jelalad-Din Rumi (1207-73), “*You’ve seen a magician make a bowl of rice seem like a dish of tiny, live worms. Before an assembly with one breath he made the floor swarm with scorpions*” (Mathnavi Bk. 5. v. 449), thereby repeating, with the substitution of scorpions for snakes, that which is recorded of the magicians in the Holy Koran, where the magicians cast down their staves and they turned into writhing snakes (Holy Koran, *Sura Al-A’raf*, 7:106-119; *Sura Ta Ha*, 20:65-76; *Sura Ash-Shu’ara*, 26:41-49) and then the Prophet Moses-Musa cast down his staff which turned into a serpent and which swallowed

their devices.

Jelalad-Din Rumi also records the production of sculptures of birds made from wax: “Similarly a bird may be fashioned of wax complete with feathers and wings, but for all that it is wax. Do you not see that when you melt it, the bird’s feathers and wings and head and feet altogether become wax? Nothing whatsoever remains that can be separated out; all turns to wax. So we realise that it is wax, and the bird that was fashioned of wax is the same wax, embodied and having taken on a certain shape but wax nevertheless” (Arberry, 1977, 117); and he also mentions, “Like a palm tree of wax, without (real) leaves and fruit, wax dirt” (Mathnavi Bk.5. v. 419). Fashioning a bird, a palm tree or anything else from wax was often the initial step in making a cast in metal and Rumi’s remarks, given his contacts with painters and other members of the Seljuk *nakkaşhane* (Duggan, 2006, 165-74), may indicate the production of metal sculptures at Konya, sculptural automata of birds to place on the branches of a metal palm tree, like those known to have been in the *dar al-shajarah* on the tree of gold and silver in the palace of the Caliph al-Muqtadir (Fig. 3).

Likewise his remarks upon mercury, “Don’t slide into the cracks of the ground like spilled mercury” (Moyné, & Barks, 1999, 53, citing A. J. Arberry, *Mystical poems of Rumi*, 2232), record a material that was frequently employed in generating movement in automata, recorded for example in al-Jawbari’s XIII<sup>th</sup> c. treatise entitled *Kashf al-Asrar*, *The Unveiling of Secrets*, written for an Iraqi Prince, where it is explained how the sword wielding arms of statue-automata are activated by tubes of mercury attached to trip wires (Irwin, 1994, 188).

A further description of these clothed life-sized sculptural automata with arms, some probably powered by these mercury switches is given in the *Book of The Thousand Nights and a Night*, in the Tale of King Umar al-Numan, which may describe the interior hall of an East Roman palace on the disputed East Roman-Muslim border in South-East Anatolia. It is reported there was a tree with gold and silver branches in the Monastery of Mar Gabriel in the Tur Abdin until it was removed by Timur, and the metal automata of the tree with birds, seems always in this period to have been associated with a collection of other automata in palaces (Parker, 2010, 303):

“He (Prince Sharkan) saw a great hall carpeted with silk rugs of Khurasan and lighted by high windows giving upon leafy gardens and pleasant springs. Against the walls were ranged figures, dressed as if they were alive, which moved their arms and legs astonishingly, and spoke and sang by some concealed device” (Mardrus-Mathers 1996, Vol. I, 362, 49<sup>th</sup> Night). These clothed sculptural automata, the storyteller located within the hall of a monastery in the territory of the East Roman ruler Hardud of Ceserea (Kayseri) close to the Moslem border in S.E. Anatolia).

And this same type of sword wielding human figured automata are also recorded, described as talisman, by Hakim Jamal al-Din Abu Muhammad Ilyas b. Yusuf b. Zakib. Mu’ayyad Nizami of Ganja (c.1140-1217) in his 1197 work entitled, *Haft Paikar*, the “*Book of the Seven Princesses*”:

“Upon the road to that high-towered fort she (Princess Turandot) set with cunning skill some talismans (automata Translated by R. Gelpke as “mechanical guards”, Nizami, 1976, 88). Each talisman a form of iron and stone; each having in the hand a glittering sword. So that whoever reached that dangerous pass, by the sword’s strokes (at once) was cut in two” (Nizami, 1924, Vol. I. 174, line 1, 542ff).

“She (Princess Turandot) shaped many a talisman out of iron and stone, strange figures, each of which held a drawn sword in his hand. These

*artificial watchmen she hid, equipped with an invisible mechanism, at the edge of the path leading to the fortress. Every trespasser who did not know the secret and therefore could not measure his steps in a certain definite way, would in future be slain by one of the hidden swords”* (Gelpke, 1976, 86).

This type of sculptural automata is recorded at a much earlier date in the y version of the Alexander Romance: “When Alexander entered the palace (in Egypt), there was a statue of Nectanebo standing before the door, with an inscription on it, and a crown in its right hand and a sphere in its left. On this was portrayed the creation of the world. On the statue’s breast was inscribed: ‘whoever enters my house, I will place this crown on his head. You shall all recognize this man as my son. He will travel over the whole earth. His name shall be given to this city.’ And just as Alexander entered the gate, the statue placed the crown on Alexander’s head. Alexander swiveled around in amazement, and stretched out his hand to the crown that had just been placed on his head. And then the statue placed in Alexander’s hand the globe that was in its left hand. Everyone who was there was astonished. Alexander embraced the statue and recognized the features of Nectanebo; then he looked down at the inscription on the statue’s chest and rubbed it out with his own hand. He honoured the statue that had thus prophesied his rule by gilding it all over. Alexander did not want to be considered the son of Nectanebo, but of Phillip and the gods. That was the story that became known to everyone” (Stoneman, 1991, 173).

And automata of a similar type were constructed in the XII<sup>th</sup>-XIII<sup>th</sup> centuries and were recorded in surviving copies of al-Jaziri’s work (Figs 6 & 7) (Op. cit. fn. 21).

Jelalad-Din Rumi records, “Men have fashioned upon the highways, in caravanserais and on the banks of pools, men of stone or birds of stone, and out of their mouths the water comes and pours into a pool. All possessed of reason know that the water does not issue out of the mouth of a stone bird, it issues out of another place” (Arberry, 1977, 52). A passage important not only for the distinction drawn between form and function, between appearance and reality, between possessing form but lacking a soul (Partial knowledge of sculptural automata in the Islamic and East Roman palace-courts may be connected with some versions of the Jewish belief in the golem, as also in various other stories of oriental wonders), characteristic not only of fountains fashioned in the form of human figures or birds, but also of palace automata (Regarding Jelalad-Din Rumi’s distinction between form and spirit: Mathnavi 1982, Bk. 1, 1982, v. 1020, “The painting on the wall is like Adam; see from the (pictured) form that thing that is wanting.”, as also, v. 2765, “To the picture of a fish, what is the difference between land and sea?”, and, v. 3035, “What else (but good) should the picture think of the painter, since he bestowed thought and knowledge upon it?”; Mathnavi 1982, Bk. 4, v. 381ff, “What authority should the pictures (phenomenal forms) desire to exercise over such an Artist for the purpose of testing Him? If it (the picture) has known and experienced any trial, is it not the case that that the Artist brought that (trial) upon it? Indeed, this form that He fashioned-what is it worth in comparison with the forms which are in His knowledge? And Bk. 1, v. 611, “Before the painter and the brush the picture is helpless and bound like a child in the womb.” ie., It is the spirit, not the form that is of crucial importance); and a passage important for our understanding of Seljuk sculpture, indicating carved stone human figures and birds, possibly free standing rather than only in relief, were employed as fountains, but which may also suggest, given his court connections, Rumi’s familiarity with the water technology that often powered and gave voice to sculptural automata, as it seems probable that some of the formerly metal lined holes in the mouths of XIII<sup>th</sup> century Seljuk stone sculptures of various forms, including lions and human

headed birds – “*jinn of the air*” (Human headed birds beside the Waters of Life are mentioned in the Alexander Romance, in origin dating from the III<sup>rd</sup> c. B.C. (Stoneman, 1991, 9, re birds Bk. II, 40, p.121, “*Then we saw a light that did not come from the sun, moon or stars. I saw two birds in the air: they had human faces and spoke in Greek. “Why Alexander, do you approach a land which is god’s alone? Turn back, O man, tread the land that has been given to you and do not lay up trouble for yourself*”) translated into Syriac from the Greek (and a probable source for Nizami’s *iskandernama*) as also for the *Wak Wak Tree*), were for the production of sounds, that these tubes were not just to jet water into pools but to let these sculptures speak, as was almost certainly the case for some of the no longer extant metal, dressed, enameled and bejeweled sculptural automata in Seljuk palaces, some of these automata spoke and the water supply to Seljuk, as to other Islamic palaces, served not just to fill the fountains, cisterns and pools, but also enabled some of the sculptural automata in the palace to speak. Other sculptures are known to have spoken through the passage of air through them (Probable surviving examples being the spherical cast vessels thought to contain the bag of a bagpipe-like device which was found inside both the bronze sculpture of a XI<sup>th</sup>-XII<sup>th</sup> c. lion probably made in Spain and also inside the Pisa XI<sup>th</sup>-XII<sup>th</sup> c. griffon. On this see, Contadini, Camber, & Northover, 2002, 68-70 and Pls. 61, 63, 64. The tradition of speaking statues has a long history. Pindar (Paen 8) records the six bronze sirens of the bronze Temple of Apollo at Delphi that sang; F. Teeter, records the tubes in and holes bored through sculptures for oracles to speak through in Late Period Egypt, Teeter, 2003, 94; the bust of the philosopher Epicurus today in Copenhagen with a speaking duct leading from the mouth to the back of the head, Spivey, 2013, 47; as also Poulsen, 1945, 178-195), as with the large yellow brass statues of lions at the uppermost corners of the Ghumdan Palace in San’a, Yemen, recorded by al-Hamadani in the X<sup>th</sup> c., as later by Yakut in the XIII<sup>th</sup> c., which roared when the wind blew through the body of these sculptures (Contadini, Camber, & Northover 2002, 69 and fn.39), being similar in location and in emitting sound to the Tritons on the Alexandrian Pharos.

“*Some people,*’ said the Mulla to himself one day, ‘*are dead when they seem to be alive. Others, again, are alive although they seem to be dead. How can we tell if a man is dead or if he is alive?*” A body without a soul, a phantom, a mirage, appearance without Reality, such as these sculptural automata - those that are dead to Reality, as distinct from those that are dead to the world but alive to the Reality and so are Alive, also forms the subject of a story related by Jelalad-Din Rumi’s near contemporary, the late XIII<sup>th</sup>–early XIV<sup>th</sup> c. teacher Nasred-Din - Nasrudin Hoca concerning this matter of the dead and the alive, of the illusion of this life and those living this or some other of a multitude of temporal illusions, as distinct from those that are truly Alive, in both this world and the next (Probably in origin stemming from the Holy Koran, *Sura Al-An’am, Cattle*, 6:122, “Can the dead man whom We have raised to life, and given a light to walk with amongst men, be compared to him who is in darkness from which he will never emerge?):

“*Some people,*’ said the Mulla to himself one day, ‘*are dead when they seem to be alive. Others, again, are alive although they seem to be dead. How can we tell if a man is dead or if he is alive?*’

*He repeated this last sentence, ‘How can we tell if a man is dead or if he is alive?’ so loudly that his wife heard. She said to him: ‘Foolish man! If the hands and feet are quite cold, you can be sure that he is dead’.*

*Not long afterwards Nasrudin was cutting wood in the forest when he realized that his extremities were almost frozen by the bitter cold.*

*'Death', he said, 'now seems to be upon me. The dead do not cut wood; they lie down respectably, for they have no need of physical movement'. He lay down under a tree.*

*A pack of wolves, emboldened by their sufferings during that harsh winter, and thinking the man dead, descended upon the Mulla's donkey and ate it.*

*'Such is life!' the Mulla reflected; 'one thing is conditional upon another. Had I been alive you would not have taken such liberties with my donkey' (Shah 1976, 154).*

### **The Appearance of These Seljuk Automata**

It seems reasonable to suggest, although in the absence of the miraculous discovery of some physical remains of an automata from a Rum Seljuk palace it will remain unproven, that some of the depictions on the 8 pointed Seljuk palace star tiles, whose form repeats the "*seal of Süleyman*", may actually depict XIII<sup>th</sup> c. Seljuk sculptural automata, (For example Arık, 2000, figs 164a-167, of a human headed winged feline, as also depicted on the island of Wak-Wak in the "*Schefer Hariri*", painted in Baghdad in 1236 by Yahya Ibn Mahmud al-Wasiti in his illumination of the *Maqamat*, Bib. Nat, Paris MS. Arabe 5847, fol. 121; Arık, 2000, figs. 156-164, and of human headed birds and Arık, 2000, fig. 168, of a human headed feline with a dragons tail as depicted on the same illumination; Arık, 2000, Fig. 174, of a camel headed ostrich; Arık, 2000, fig. 173, the griffon; Arık, 2000, figs. 80-90, the paired birds in a palm tree repeating the type of palace automata found in both Baghdad and Constantinople for centuries; Arık, 2000, figs. 178-92, depictions of palace staff carrying objects, like those automata depicted by al-Jaziri, and, Arık, 2000, figs. 170-2, 274, depicting dragons) and it seems, to this author, most probable that the designs for these palace automata, or the sculptural automata themselves, were frequently copied and that they appear as the figures that are depicted on some of the tiles from Kubadabad and on other 8-pointed star tiles from other Seljuk palaces and *köşkü*-pavilions (Duggan, 2006, 206-8), tile revetments that depict the four armies of the Prophet Süleyman, people, animals, birds and jinn, to remind the viewer of the Sultan, of the "*Second Süleyman*", with these four armies at his command due to his possession of the Seal of Süleyman bin Daud-Solomon son of David (Figs. 3, 4, 5, 8).

In addition to some form of the famous automata of the singing birds in the palm tree which may have been employed by Seljuk rulers, as in an abbreviated form it seems to be depicted on some of these XIII<sup>th</sup> c. Seljuk palace tiles (Arık, 2000, figs. 84, 85, 87) (Fig. 3) and almost certainly lion (Arık, 2000, figs. 115-6) automata, both of these types of automata are known to have been employed by Abbasid Caliphs; there may well have been sculptural depictions of jinn, in the form of jinn automata around the throne of the "*Second Süleyman*", as Ibn Bibi describes Sultans Kılıç Arslan II, Giyathsed-Din Keyhusrev I, Izzed-Din Keykavas I, Alaed-Din Keykubat I and Giyathsed-Din Keyhüsrev II, as being the "*Second Süleyman*," and he records the Seljuk dynasty was brought to this location by the "*Wind (Breath) of the Prophet Süleyman*." (Ibn Bibi equates the arrival of the Seljuk house to "*the wind of the Prophet Süleyman*", as in the Holy Koran, *Sura Al-Anbiya*, 21:81; and *Sura Sad*, 38:36, doubtless in part because the founder of the dynasty was Süleyman Ibn Kutlumush, Bibi 1996, c. 1, 20, and there was also Sultan Rukned-Din Süleyman II, "*the second Sülyeman*"). Some of these jinn automata may have been lions with human heads and wings (Arık, 2000, figs. 164a-168, fig 7, 61, 201; Duggan, 2006, 186-187), sculptured automata that depicted the "*jinn of the land*" (Fig. 4); some

may have been birds with human heads (Arik, 2000, figs. 156-64, fig 4; Duggan, 2006, 185-6), sculptured automata that depicted the “*jinn of the air*” (Fig. 8). There were perhaps other sculptural automata depicting other creatures with human heads, identifying them a jinn (A graphic description of the armies at the Prophet Süleyman’s command occurs in *The Extraordinary Tale of the City of Brass*, in the 341<sup>st</sup> Night, “*When Süleyman learned the treatment which his envoy had undergone, he grew mightily indignant and at once assembled all his forces, of jinn, of men, of birds and of animals. To Asaf Ibn Barakhya he gave command of his human soldiers; to Dimiryat, King of the Afarit (of the air), the leadership of all the forces of the jinn to the number of sixty millions and also of the troops of animals and birds of prey which he had assembled from the earth and sky and sea. Heading the combined force himself, Süleyman entered the lands of my master and drew his army up into battle array*”, Mardrus-Mathers 1996, Vol. II, 341<sup>st</sup> Night, 293); and there was possibly writhing serpent-dragons (Fig. 9), another of the jinn automata (Arik, 2000, figs. 168, 170-2, 274; Duggan, 2006, 195-6. This type of serpent-dragon automata is recorded in *The Thousand Nights and a Night*, in the tale of Jūdar and his brethren, the automata figures in the cave beneath the lake, “*the semblances without life*”, “*bodies without souls*”, which included two dragons; as also the pair of dragons held probably by the Prophet Süleyman depicted on the 1221 Talisman Gate to Bagdad); together with servant figure automata (Fig. 5), of the type well known from al-Jaziri’s work (Fig. 2) (Arik, 2000, figs. 188-9, 190, 191, 195; Tekeli S., Dosay M., & Unat Y. (2002) Plate 1:36). Perhaps a ‘griffon’ type of automata, with the body of a lion but with the head of a bird of prey (Fig. 10) and, like the Pisa bronze griffon in having lions paws rather than claws at the ends of its forelegs and issuing sounds. Ibn ‘Arabi relates of the griffon that it is potentially existent but non existent and that no one has knowledge of it except for the Prophet Sülayman (Elmore 1999, 80, fn 68), and therefore a fitting form of automata for the Second Süleyman; perhaps also an automaton having the body of an ostrich, but with the head and neck of a camel, a *deveküş* - a camel-bird (Depicted on a single tile from Kubadabad, Arik, 2000, fig. 174. A reminder perhaps of those who said they were looking for a camel walking on the palace roof that caused a sleeping (as in unaware, not physically asleep) ruler (Ibrahim b. Adhem) to wake up and to realize the folly of his activities in impersonating the unsleeping real ruler of the world, the Almighty, and so to depart from the world of show, of appearances, to leave his throne, position and riches behind and to become a dervish, as recorded in Bk. IV of Rumi’s Mathnavi, Mathnavi 1982, l. 829-838:

*“Eh, what are ye seeking?” “Camels,” they replied. He (Ibrahim b. Adhem) said, “Take heed! Whoever sought camel on a roof?”.*

*Then they said to him, “How art thou seeking to meet with God on the throne of state?”.*

*That was all. None saw him (Ibrahim b. Adhem) again: he vanished like a genie from (the sight of) man.*

*His reality (real self) was hidden, though he was in people’s presence: how should people see aught but beard and frock (of the dervish)?” An echo of this, of camels on the roof, occurs in the story told by Nasred-Din - Nasrudin Hoca as to why camels have no wings: ‘Daily’, said Nasrudin to his wife, ‘I become more amazed at the manner in which nature is organized; and the way in which everything upon this earth is in some way planned for the benefit of mankind.’ She asked for an example. ‘Well, for instance, you note that camels have no wings, by the mercy of Providence.’ ‘How does that help us?’ ‘Don’t you see? If they had wings they might roost on*



*housetops, and destroy the roofs, to say nothing of the noise and the nuisance of their chewing and spitting their cud.*' Shah 1975, 70) (Fig. 11), a truly astounding collection of creatures, both worldly and otherworldly, of automata, surrounded the throne of the Second Sülyeman, the Seljuk Sultan Ala ad-Din Keykubat I.

All of these palace sculptural automata would have been lifelike in the tradition of palace automata at Islamic courts and some were probably "life-sized", such as the jinn-lions with human heads and some birds, perhaps including human headed singing birds, were located by or on the branches of a gilded tree (A tree with human heads is mentioned in *The Tale of Bulukiya*, 360<sup>th</sup> Night, Mardrus-Mathers 1996, Vol. II, 337, "They rested upon the shore until they were refreshed, then began to walk amongst the trees; but, to their horror, they soon noticed that these bore human heads on stalks of hair instead of fruit."; as also in, *The Tale of the Sea-Rose*, 955<sup>th</sup> Night: "Among trees bearing living heads which grinned and laughed and fell as he passed by, and other trees whose fruits were earthen pots, which cracked and let out birds with golden eyes"; continuing the connection with the Abbasid tree Mardrus-Mathers 1996, Vol. IV, 407), set in a pool of mercury or in a tin lined pool, resembling the automata-like figures recorded in the contemporary 1236 miniature illustration of the land of Wak Wak, in Hariri's *Maqamat* painted in Baghdad by Yahya Ibn Mahmud al-Wasiti (The "Schefer Hariri" of 1236, painted in Baghdad by al-Wasiti, Bib. Nat. Paris, MS Arabe 5847, f. 121), depicting a winged lion with a human head, and birds, one with a human head, by a tree, both the lion and birds figures with human heads depicting the jinn, figures that were probably based upon the forms of otherwise unrecorded Abbasid palace automata (Figs. 12, 13). These XIII<sup>th</sup> c. Seljuk moving, speaking sculptures were a continuation of the singing metal birds in the tree and the roaring throne lion automata recorded in the halls of audience of VIII<sup>th</sup>-IX<sup>th</sup> c. Abbasid and later Islamic courts, as also at the East Roman (Byzantine) court in Constantinople.

The attribute of automata, of possessing both form and motion and sometimes the attribute of speech, but of lacking a spirit, were also characteristic of the silhouette images employed in contemporary court and urban shadow plays, and there may well be a relationship between the form of some of these no longer extant Seljuk palace sculptural automata and some of the silhouette figures that are still employed today in the shadow theater (Duggan, 2011, particularly 87-88), more particularly those cut outs that are today termed, "*dragon*" (Fig. 14) or that termed "*şahmaran*" (Fig. 15) but which in its form, a serpent with a human head, does not resemble the typical traditional depiction of a *şahmaran* and which was possibly based upon an automata of the Queen of the Jinn; that which is termed "*Burak*", but being a winged lion with a human head, (Figs. 16, 17) not the Burak of the Prophet's Mir'aj, but representing the form of the automata of the "*jinn of the land*"; and the silhouette images of human headed birds, that is, representing the form of the automata of the "*jinn of the air*" in the Wak-Wak tree silhouette (Fig. 18), (Sabri Koz 2004, *The Wak-Wak tree*, 11, *Jinn* 320-1, *Dragon* 356, *Burak* 358-9); with these same types of depictions occurring on XIII<sup>th</sup> c. Seljuk palace tiles, as also depicted on other ceramic objects, as also in metalwork and stucco, and which are also recorded in contemporary manuscript miniatures.

These palace automata and the depictions made of them in other materials would have reminded the XIII<sup>th</sup> c. observer of the power of the ruler, of the Second Süleyman; with the dragon-jinn automata for example, recalling both the Prophet Musa' staff turning into a dragon-serpent and writhing across the floor, and also at the same time, a depiction of the jinn under the control of the Just Ruler, the Second Süleyman, as for example carved in relief on the 1221 Talisman Gate in Baghdad (destroyed in 1917), where the Caliph, the ruler is depicted holding the tongues of the jinn, depicted as serpents, in either hand; or the protective jinn also depicted

as serpents carved over the entrance to the Aleppo citadel, as also in Seljuk territory in reliefs carved over and around doorways and iwans, as formerly above the door to the Seljuk pavilion-*köşk*, today called the Taş Mescit at Çankırı; but these brazen automata in Seljuk palaces, unlike the stone carvings depicting these same jinn, moved. Some of these automata uttered sounds, were probably covered in gold leaf, gilded or otherwise colored, perhaps with bejeweled heads that may have rotated, bent, roared or pecked and turned, all seemingly of their own volition.

Further there are the accounts of a speaking head, described as the head of Baphomet (Muhammad) in the possession of the Knights Templars: “*the idol in the form of a head, which according to these witnesses had up to four faces, was also described by one Templar as having two small horns and possessing the ability to reply to questions put to it*” (Barber 2000, 207).

Which was reported by various witnesses at their trial of 1307-11 (M. Barber, *The New Knighthood*, Cambridge University Press, Cambridge, 2010, 306-7 for the worship of a certain head, termed an ‘idol’), which would seem to recollect a speaking automata, perhaps a gift from an Emir or Muslim ruler to a Master of the Order of the Temple, given its name and made by a Moslem court engineer. There seems to have been one, or several speaking head sculptural automata, with a beard, two or three or four faces and sparkling eyes, which some Templars seem to have come into contact with in the XIII<sup>th</sup> c., and which were suspected or were alleged to have served some ritual function in Templar practice. A trace perhaps of some speaking head-sculptural automata that also occurs in the Tale of the Wazir of King Yunan and Rayyan the Doctor, related on the 5<sup>th</sup> Night of *The Thousand Nights and One Night* (“*Indeed a book that is the extract of extracts, the rarities of rarities of science, and I would offer it to you that you might keep it forever amongst your chests of books... It holds devices that are above price, the least of its secrets being this: if, when my head is (cut) off, you turn three pages of the book, then read three lines on the left-hand page, my severed head will speak and answer any manner of question... Doctor, is this true? Even if I cut your head off will you speak? Indeed it is true my king, he answered, It is one of the prodigies of my science... Take this book, my King, but do not use it until you have cut off my head. When my head is off, set it upon this plate and have it pressed down firm upon the powder to stop the bleeding. After that open the book*”. Mardrus-Mathers, 1996, Vol. I, 34. The idea of the book with poisoned pages later, employed by Umberto Eco, in *The Name of the Rose*, 1980). It seems probable that the speaking double faced automata described by Brother Henry Danet, *Templar Commander of Ireland* in his testimony of the 15<sup>th</sup> of November 1307 was probably not Seljuk, but rather in this case Ayyubid-Abbasid, although there may have been Seljuk examples of this multiple-faced speaking head (see below). This reference to a metal statue of a double-faced head that spoke, a speaking statue, occurs in the proceedings of the trial of the members of the Order of the Temple:

“*Also he (Brother Henry Danet, Templar Commander of Ireland (Nicholson 2011, 188) deposed that a certain Templar had a certain brazen head in his custody, which had two faces, and it was said it would reply to everything. Also, that he never heard that any brother of the Order adores an idol, except the commander of Castle Pilgrim and the aforesaid Brother Hugh and the brothers received by them*” (Nicholson 2011, 189).

It is unclear if the brazen head in the custody of a Templar belonged to the Order or not, nor of its whereabouts, in Castle Pelegrin/Pilgrim/‘Atlīt or elsewhere. A Janus-like double faced head that spoke, was bearded and had eyes that sparkled, double-faced, having two aspects, like the double headed falcon.

### Seljuk Automata

There are indications of a speaking automata being repaired or destroyed in Seljuk territory early XII<sup>th</sup> c. Following the defeat of a Crusader army of Aquitanians and Bavarians, led respectively by William IX of Aquitaine and Welf I Duke of Bavaria, by Heraclia Cybistra/Ereğli in September 1101, Archbishop Thiemo of Salzburg, a talented painter and metalworker-sculptor, was captured by Seljuk Sultan Kilij Aslan I's forces and it is said that while he was imprisoned he was put to work repairing a Muslim 'idol', a speaking automata presumably belonging to the Seljuk ruler/Emir, possibly an Abbasid gift to Sultan Kilij Aslan, and possibly of the type that was reported during the trial of the Templars. Suddenly the automata began to speak in a blasphemous fashion, presumably as a result of Thiemo's repair work and, in consequence it is said, Thiemo was executed (Mayer, 1990, 65. That he was martyred for 'destroying Muslim idols' was rejected by Otto of Freising (d. 1158).

It is doubtless somewhat speculative, but one can suggest that it might possibly be the case that there is a surviving contemporary representation of the form of a Seljuk bearded speaking head automata, probably of a similar two faced type to that which is described as being in Castle Pilgrim in the possession of the Order of the Templars by Brother Henry Danet, Templar Commander of Ireland in 1307. This is the bearded face depicted in stone, carved in the panel to the right hand side of the portal of the 1253 Çifte Minareli Medrese of Erzurum, which seems clearly to be the work of the jinn, as with the aid of the Almighty, "*With good fortune you will see the Sun in the shadow*" (Attar, 1978, 31-2), so, through the carving of a double headed falcon on top of a palm tree and fronds, a reminder of "*The palm tree of the Caliphate*" (Mathnavi, 1982, Bk. 1, 3947, as also to "*the palm tree of Paradise*", Mathnavi, 1982, Bk. 4, v. 1771, & 3509; as also to the palm tree as a sign of generosity, Mathnavi, 1982, Bk. 5, v. 810, & 1189-90) as also of the palm tree automata with bird automata in the *dār al-shajara* of some Abbasid Caliphs (as noted above), and the crescent moon (*hilal*-symbol of the Almighty) - there appears to be recorded simultaneously with this double headed falcon, crescent moon and palm tree, the face of a bearded man, some three centuries before Giuseppe Arcimboldo (1527-1593) painted similar two faced images for the court of King Rudolph II in Prague. Presumably, like the depiction of the seal of Solomon device, the depiction of a jinn figure or the figure of a dragon, this Seljuk two faced, bearded head/double headed falcon, crescent moon and palm fronds, served to mark the design of this medrese in Erzurum as being the work of the jinn-the master designers-craftsmen working for the Second Süleyman (Fig. 19).

### The Two Seljuk Speaking Statues at Aksaray

There is however one clear historical reference to Rum Seljuk palace sculptural automata, to a pair of speaking statues, which can be understood as the confirmation of the body of indications that suggest that it was the case that XIII<sup>th</sup> c. Rum Seljuk Sultans had sculpted automata in their palaces, as has been suggested above, that records the continuation under the Rum Seljuk Sultanate of the longstanding tradition of the employment of moving-speaking statues at Islamic and Byzantine courts over the preceding more than 600 years. This is the tradition recorded in the XVII<sup>th</sup> c. by Evliya Çelibî that relates that the entrance gateway to the White Palace built at Ak Seray (Aksaray) by Sultan 'Izzed-Din Kaykavus I (1211-19) b. Kılıç Arslan II, had on either side of it sculptures of lions that "*gave off a roaring sound.*" (Bates, 1994, 259). This "*roaring sound*" given off by the Seljuk sculptures of lions by the entrance to the White Palace was probably generated in the same manner as the "*roaring sound*" recorded by Glykas of the lions by the Byzantine Emperor's throne constructed by the engineer Leo the mathematician 790-c. 869 "*...where the imperial throne was overshadowed by a golden plane tree, its branches full of*

*jewelled birds-some of which are said to have hopped off the tree and onto the throne itself. Around the trunk of the tree were lions and griffons couchant, also of gold. Still greater would be the visitors wonder when, at a given signal, the animals would rise up, the lions would roar and all the birds would burst simultaneously into song...*" Bent, 1887, 473-4; Norwich, 1993, 44; Beckwith, 1993, 171); this "roaring sound" was also recorded by Luidprand (The X<sup>th</sup> c. historian, Luidprand, Bishop of Cremona and ambassador of Berengar of Ivrea, in September 949 came to Constantinople during the reign of Emperor Constantine Porphyrogenitus (913-59). He stayed in the city until March 31, 950 and records in his *Antapodosis* that he together with Spanish envoys, probably envoys from al-Andalus, saw automata in the Palace called the *Magnaura* by the Church of St. Sophia: "A tree made of brass but gilded over stood before the throne. The boughs were full of birds of different kinds, also made of brass and also gilt, which sang in a chorus of different birdsongs according to their kind. The Emperor's throne was constructed with such skill that at one time it was level with the ground, at another it was raised above it and then in a moment it hung aloft. It was guarded as it were by lions of immense size-one could not be sure if they were made of brass or wood but they were certainly covered with gold on the surface-which opening their mouths and moving their tongues roared aloud and shook the ground with their tails. Here I was brought into the presence of the Emperor supported on the shoulders of two eunuchs. The lions roared at my coming and the birds sang according to their kind. Thrice I performed the act of adoration prone at full length upon the ground. Then I raised my head. Behold, the Emperor whom I had just before seen seated almost on the level of the ground now appeared to my eyes dressed in different robes almost level with the ceiling of the palace" Mathew, 1963, 113; Norwich, 1993, 153; Norwich, 1993, 169-70) of the lions by the Emperor's throne in the palace in Constantinople in 949, as was probably also the case for the sculptured automata, the lions by the Abbasid Caliph's throne at both Baghdad and Samarra, and of the large brass lions at the corners of the roof of the Ghumdan Palace in San'a, Yemen during the X<sup>th</sup>-XIII<sup>th</sup> centuries. Although being positioned outside the palace itself and so presumably being made of carved stone rather than of cast or sheet metal, and therefore presumably immobile, these lions at the entrance to the White Palace, Aksaray, incorporated part of the technology common to other palace sculptural automata at this time, as these lions, like the Tritons on the Pharos in Alexandria, like the Pisa bronze griffon 'spoke'.

*It may be that Jelalad-Din Rum alludes to these, or to some other XIII<sup>th</sup> c. Rum Seljuk speaking stone lions that not only spoke, but which also moved, in his Mathnevi: "He felt at the moment when he became rapt (in devotion) and bewildered, that the stone (lion) spoke and made signs. When the wretched man bestowed his devotion in the wrong place and deemed the lion of stone to be a (real) lion" (Mathnavi 1982, Bk. IV, 911-12).*

To draw the distinction between a figure that moved – *made signs* - and which appeared to speak, but which was without the spirit, and the real lion, the lion from the Holy Koran, *Sura Al-Maddath-Thir*, 74:50, where the unbelievers are described as behaving like frightened asses, fleeing from the lion of Prophetic revelation, was the point Rumi was driving home to his audience, the distinction between the Real and the illusion of the apparently real, the veils of illusions of the worlds. The distinction between man's forming of an object and the Almighty's creative actions is clearly stated in the Holy Koran, *Sura Al-Ma'idah*, 5:110, where the Prophet İsa (Jesus) shapes a bird from clay, but it only flies when the Spirit is breathed into it, clearly distinguishing between the Almighty who both forms and gives to the form its Spirit, as with the

Creation and the making of Adam, and a simple forming from clay, and in the distinction between a man-made automata of a jinn, and a jinn. This same point is driven home in the Holy Koran in the Prophet Süleyman's encounter with Belkis, when the Prophet Süleyman remarked of the Queen of Sheba:

*“She is possessed of every virtue and has a splendid throne”. (Holy Koran, Sura an-Naml, 27:24). He called her to the faith in the One God, for her to renounce her worship of the sun. He summoned the Queen of Sheba (Belkis)'s throne to his palace, brought in the twinkling of an eye by his Vizier, the jinn, Assaf bin Berachia, and then had it altered, to determine if she saw clearly and recognized it as her own throne. The Queen replied to Solomon's question, “Is your throne like this? With the reply, “It looks as though it were the same” (Holy Koran, Sura an-Naml, 27:41-2). She did not recognize it as being her own throne, she only recognized a resemblance between the throne that she saw in front of her and her own throne and consequently Solomon comments, “Her false gods have led her astray, for she comes from an unbelieving nation.” (Holy Koran, Sura an-Naml, 27:43). The Queen then mistook the glass, polished mirror-like floor of his hall of audience for a pool of water, and, “when she saw it she thought it was a pool of water, and she bared her legs. But Solomon said: It is a palace paved with glass” (Holy Koran, Sura an-Naml, 27:44).*

Like the subtle change made to the Queen of Sheba's throne and the throne's transportation over a vast distance in the twinkling of an eye, this apparent pool of water in Solomon's audience hall was a work of *aja'ib*, made by the wonderworking skilled craftsmen, the jinn, a work of wonder, and it was sufficient to cause a misapprehension in the mind of the queen, unaware of this wondrous device, and thereby serving the same purpose as the later automata employed in Caliphal, Seljuk and other palaces, and it confirmed, together with her inability to recognize her own throne, that she did not recognize reality, that which was Real, what was the Truth, when she saw it in front of her own two eyes, that she had in fact been misled in her judgment and it was this realization, that reality was other than what she understood it to be, that she had mistaken reality for its resemblance in the case of her own throne, and illusion for reality in respect to the floor of glass, resembling a pool of water in the palace, that resulted in her conversion.

It is likewise this matter of the dead and the Alive, the automata and the Aware, the apparently, but only relatively, real and the Real, which was addressed by the great late Seljuk teacher Nasred-Din Hoca, the retailer of the news that a person should ride the donkey of his own body facing away from where that donkey of temporal desires, the body, wanted to go; in a story that asks, how is it that some people who are dead are in fact alive, while others, who appear to be alive, that is, they move and speak but are not in fact alive, they are in fact dead, that is, lost in illusion, are dead to the Real, as noted above, raising a question addressing the heart of all worldly illusions (A matter of very great import today, given the power of moving speaking images in film and on television, virtual realities, creating further realms of illusion, of virtual realities and of millions living vicariously, with the media of moving images filling the mind with a multiplicity of illusions, a man-made jungle of perversion from the individual's own temporal reality and a relatively new and profound obstacle standing in the way today in any attempt by an individual to address the Real, as was earlier remarked upon, in respect to the

possibility of man-made moving images by both Jelalad-Din Rumi in the XIII<sup>th</sup> c. and by Goethe in the XVIII<sup>th</sup> c.), of the illusions of this world, *yalan diinya* (The lie that is the temporal world), of which these Seljuk palace automata formed a part. The matter of the Real and the only relatively real, the world of forms and of forms with Spirit, being the distinction drawn between man's forming of an object and the Almighty's creative actions, as is clearly stated in the Holy Koran, *Sura Al-Ma'idah*, 5:110, where the Prophet Īsa (Jesus) shapes a bird from clay, but it only flies when the Spirit is breathed into it, clearly distinguishing between the Almighty who both forms and gives the Spirit, as with the Creation and the making of Adam, and a simple forming from clay, the making of a statue or the fashioning an automata likewise lacking the Spirit. Form, movement and speech possessed by these automata may suggest to the unaware that they are alive, but it is the presence of the Spirit that makes the form truly Alive and, for an envoy to mistake the dead for the alive, that would surely have marked the envoy, like the Queen of Sheba, as lacking in discrimination, and may have been a source of concealed amusement to both Sultan and courtier.

### Latin references and responses to court automata

It was certainly some contact with these moving speaking sculptures, with automata in both human and other form at Islamic courts during this period that gave rise to the Latin Christian allegations of Muslim idol worship, supposed worship by Muslims of the trinity of gods "*Mahom, Apollin and Tervagan*", that formed a subject that was repeatedly referred to from the period of the early Crusades onwards in Western European literature, from the late XI<sup>th</sup> c. onwards, through the later Chansons de Geste, as in other later, Latin romances (Eg. in the elements of the marvelous in Wolfram's Parzival. This same idea may have some relationship to the description of the deity said to have been worshipped by Muhammed contained in the widespread IX<sup>th</sup> c. Orthodox Christian "*Formula of Abjuration*", which records, "...God made of solid hammer-beaten metal...", Hanson 2000, 55, a mistranslation of *samad* in Sura 112.2 as meaning "*hammered together*", *ibid* 63-4, by Nicetas of Byzantium current into the XII<sup>th</sup> c. See for example *Helinandus of Frigidi Montis's Chronicon* of 1212 which records that Saracens fabricate idols in the name of Mahomet, and that there was an image of Mahomet in the Temple of Jerusalem, the source of Vincent of Beauvais's *Speculum historiale's* reference to the worship of the idol of Mahomet) into the XV<sup>th</sup> century, as, "*In the adventure story Simon de Pouille, the "idols" are activated by a man inside. The priest Goras enters (these "idols") one after another, as the hero breaks them up in turn. Usually, when these images are described, they are richly covered in jewels*" (Daniel, 1979, 238-9, and references provided in the fn. to these pages).

The repeated Latin western assertion that these moving statues were inhabited by people and that they were worshipped by Muslims was of course entirely without foundation. There is no indication that any of these automata were inhabited by living people, nor that they were they regarded as objects for worship, as idols, a false assumption made by the Latins due to their ignorance of Islam and of courts and of court practices in both Islamic and East Roman courts for centuries; and an allegation which only reveals the ignorance of the Latin Christians during these centuries, the fact that a work of *aja'ib*, a marvel, a wonder, a moving, speaking statue was immediately described by the western Latin observer or reporter as an idol. However, these works were not in any way intended to rival or to imitate the creative act of the Almighty (The distinction between man's forming of an object and the Almighty's creative actions is clearly stated in the Holy Koran, *Sura Al-Ma'idah*, 5:110. Jelalad-Din Rumi similarly remarks on this distinction, Mathavi, 1982, Bk. 1, v. 1020, "*The painting on the wall is like Adam; see from that*

(pictured) *form what is wanting*”, that which is lacking being the Spirit as distinct from the “*surat*”, the form. Consequently, it seems to this author that those who assert that a sculptor, engineer or painter in their activities were or are competing with, or imitating the actions of the Creator, thereby exhibit a lack of discrimination between a form infused with the Spirit, and an empty material form which may be mobile and in the case of some of these automata for example, able to produce sounds-speech but still lacking the Spirit, and, as such, the accusers would seem to be guilty of *shirk*, that is of associating partners, forms, with the Divine, to have confused the Real with that which is conditional upon it), which is of course a self-evident impossibility. Except for the fact there was no man inside them, which if known would have made these figures even more frightening and inexplicable to a XII<sup>th</sup> or XIII<sup>th</sup> c. Latin observer, who would then have seen them as the result of magic, not the representatives of soulless technology, these brief Latin accounts preserve a record of Islamic court automata, of moving speaking statues. In respect to the East Roman automata, Robert de Clari in his account of the 1204 Latin Crusaders sack of Constantinople seems to have been aware of them when he writes, “And the hippodrome with its wealth of statues, which (Clari assures us) *of old moved by magic, but which nowadays never work*” (De Clari, 1994, XC, 45), and these automata were melted down by the Latin Catholic Crusaders. Interestingly he doesn’t charge the Orthodox Christians with worshipping these automata, perhaps because they are said to no longer work, yet in respect to an Islamic context it was repeatedly asserted by Latin Catholic authors for centuries that Islamic automata were in fact idols that were worshipped (A paper indicating the probable VII<sup>th</sup> c. source of the original misconception which led to these false allegations has been completed and is forthcoming in 2014).

It is unfortunate for both the historical record and for our present understanding of these moving speaking sculptures, both as superb examples of XIII<sup>th</sup> c. Seljuk figural sculpture and also as evidence of the expression of continuity and the development/refinement in engineering and technological skill from antiquity onwards, that the very success of these automata, as expressions primarily of the ruler’s power to cause amazement, wonder, astonishment and fear, in part relied upon the element of surprise, and they were rarely mentioned by chroniclers or others, except briefly by those charging Muslims with idol worship, and they pass unrecorded in Ibn Bibi’s work. Envoys-“*ambassadors*”, as was the case with Luitpand’s astonished encounter with the roaring lions and the elevating imperial throne in the Palace of the Magnaura in 949, were the people who were brought into contact with these moving statues, for whom these statues sprang into movement and voice, and who, in very rare cases recorded them; but the majority of envoys, regrettably for us and our perception of the figural sculptures of the period did not record what they saw for the simple reason that what they saw was to them quite unbelievable, was so incredible that if they had recounted what they had seen upon their return to less civilized, less urbane circumstances, they would have been entirely discredited, for having been ensorcelled, enchanted and deceived; they would have been accused of telling lies, of imagining things, facing a dangerous and skeptical audience and would have met with a response such as that given by an Italian XIV<sup>th</sup> century audience to Marco Polo’s partial account of his observations recorded in his travels made at the end of the XIII<sup>th</sup> century in part through Muslim territory, a work recording observations of distant lands so different that they called these frequently accurate observations, ‘a million lies’, and when he was on his deathbed, the Dominican, Jacopo d’Acqui relates, “*because there are many great and strange things in his book, which are reckoned past all credence, he was asked by his friends to correct it by removing everything that went beyond the facts. To which his reply was that he had not told one half of what he had actually seen!*” (Larner, 1999, 45). No Venetian, Cypriot, Genovese, Pisan

or Provençal envoy that came to the Seljuk court in the first half of the XIII<sup>th</sup> c. would even have dreamed of reporting what he had seen in the hall of audience, in any *divanhane-i sultani* of any Seljuk Sultan's palace, let alone record it in any written official dispatch. The cultural, artistic and technological gulf was so vast, that to give an accurate written account would have demanded quite unobtainable levels of credulity, of the suspension of disbelief and an unobtainable level of trust in the envoy's veracity on the part of the Latin recipient and the hearers or readers of the dispatch recording what the envoy had seen in the Sultan's audience hall with his own two eyes.

It seems from the above evident that Seljuk Sultans would have had moving, speaking statues, automata in their palaces, in common with other powerful Islamic rulers in the wider region at this time, stemming from the example provided by the Caliphal court of the Abbasids. The possession and display of moving, speaking statues, of automata, were an attribute of the ruler, of the "*Second Süleyman*", and had been employed since the VIII<sup>th</sup> c. at Islamic courts. It was the ability of these automata to deceive the senses of all who were brought before the ruler, except for those that saw truly, or who had some prior knowledge of them which helps to explain the longevity of the tradition at Islamic courts of employing moving, speaking statues. They were designed and they were employed to overthrow the senses of envoys and others, so that the ruler with such wondrous devices at his command prevailed, and was seen to prevail by envoys and courtiers alike within a court-diplomatic context, this seems to have been the most important function of these moving statues, amongst many other palace devices and marvels.

These automata were not toys, they were probably the finest works of figural sculpture to have been produced in the Islamic world between the VIII<sup>th</sup> and the XIII<sup>th</sup> centuries and their memory marches on today, not only in the *figures of brass* (Duggan, 2009, 255-6), the automata recorded for posterity in the pages of the *Thousand Nights and One Night* stories, as also in the *talisman* guarding the castle, deadly automata which were constructed by Nizami's Turandot, and those which are recorded for engineers in the depictions of figural automata in the several surviving copies of Badi al-Zaman Ibn al-Razzaz al-Jaziri's XIII<sup>th</sup> c. work composed in adjacent Artukid territory entitled, *al-Jami bayn al-ilm wa'l-a mal al-nafi fi sina'at al-hiyal*, "*A compendium of theory and useful practice in the mechanical arts*" (eg. Figs. 1, 2, 6, 7). But these figural automata also seem to be recorded in the figures which are painted on some of the XIII<sup>th</sup> c. Seljuk palace 8-pointed star tile-work revetments recording: the jinn of the air and of the land, griffons, dragons, jinn, the palm tree automata with birds, and the depictions of other probable sculptural automata, together with the possible depiction of the two faced speaking head type of automata on the portal of the Çifte Minareli Medrese of Erzurum; while they also seem to be recorded in the form of some of the silhouette figures which are still employed for our entertainment and edification, representing and reminding us of the qualified illusion that is the temporal world (Duggan, 2011, 85), in the performances of the Turkish shadow theater throughout its millennial long history into the present day.



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### Captions to Figures

- 1) Edited to provide a more 3D representation of al-Saatci's Damascus clock automata, from the record of it in al-Jazari's 1206 work (from Tekeli, Dosay, & Unat, 2002, plate 1.55. Computer graphic work by A. Aygün).
- 2) Technical drawing from Badi' al-Zamman Isma'il ibn Razzaz Abu'l-'Izz al-Jaziri's c. 1206 manuscript illustrating an automata statue of a youth who pours water as required from the jug held in his right hand (from Tekeli, Dosay, & Unat, 2002, plate 1.36).
- 3) 8 pointed star tile from the Palace of Kubadabad, possibly depicting in simplified form a palace automata of the palm tree with bird automata, (From Ed. D. J. Roxburgh, *Turks a journey of a thousand years 600-1600*, Exhb. Cat. 2005).
- 4) 8 pointed star tile in luster from the Palace of Kubadabad, depicting a Jinn of the land, a lion with a crowned human head, possibly depicting a Seljuk palace automata (From Ed. D. J. Roxburgh, *Turks a journey of a thousand years 600-1600*, Exhb. Cat. 2005).
- 5) 8 pointed star tile from the Palace of Kubadabad, possibly depicting a servant-automata, possibly indicated by the extended length of the finger (From Ed. D. J. Roxburgh, *Turks a journey of a thousand years 600-1600*, Exhb. Cat. 2005).
- 6) Technical drawing from Badi' al-Zamman Isma'il ibn Razzaz Abu'l-'Izz al-Jaziri's c. 1206 manuscript illustrating an automata in the form of a negro executioner, flame extinguisher (from Tekeli, Dosay, & Unat, 2002, plate 1.36).
- 7) Technical drawing from Badi' al-Zamman Isma'il ibn Razzaz Abu'l-'Izz al-Jaziri's c. 1206 manuscript illustrating an automata in the form of an executioner, flame extinguisher (from Tekeli, Dosay, & Unat, 2002, plate 2.74).
- 8) Pointed star tile from the Palace of Kubadabad, depicting a *Jinn of the air*, a bird with a human head, possibly copied from a Seljuk palace automata (From Arık, 2000).
- 9) Possibly depictions of writhing serpent-dragon automata on an 8 pointed star tile from the Palace of Kubadabad (From Arık, 2000).

- 10) 8 pointed star tile from the Palace of Kubadabad, depicting a 'griffon' known to the Prophet Süleyman, a possible representation of an automata, with the body of a lion but with the head of a bird (From Arık, 2000).
- 11) 8 pointed star tile from the Palace of Kubadabad, perhaps also depicting an automata having the body of an ostrich, but with the head and neck of a camel, a *deveküş* - a camel-bird (From Arık, 2000).
- 12) Folio 121 from the "Schefer Hariri" of 1236, painted in Baghdad by al-Wasiti, Bib. Nat. Paris, MS Arabe 5847, (From P. J. Müller, *Arabische Miniaturen*, 1979) showing a human headed lion, "a *jinn of the land*", and the human headed bird, "a *jinn of the air*" and the fabled Wak-Wak tree. The Wak-Wak tree may have originated in stories of the fabulous tree with its bird automata in the Caliph al-Mutawakkil's *dar al-shajarah*, although the Wak-Wak tree is usually related to the coconut tree with its fruit said to resemble human heads. Both of these depictions of jinn are also represented on the Kubadabad tiles and may represent the form of these types of Abbasid, Rum Seljuk and other XIII<sup>th</sup> c. palace automata.
- 13) Detail of Fig. 12.
- 14) Silhouette figure of a "*ejderha*" - dragon figure from the shadow theater (From Koz, 2004) .
- 15) Silhouette figure of a "*şahmaran*" figure from the shadow theater (From Koz, 2004).
- 16) Silhouette figure termed "*Burak*" from the shadow theater (From Koz, 2004) but resembling a 13<sup>th</sup> c. Jinn of the Land.
- 17) Silhouette figure of "*Burak*" from the shadow theater (From Koz, 2004) but resembling a XIII<sup>th</sup> c. Jinn of the Land.
- 18) Silhouette figure of the "*Wak-Wak Tree*" (with a *jinn of the air*, a human headed bird) from the shadow theater (From Koz, 2004).
- 19) Possible depiction of the face of a bearded speaking automata carved by the portal to the 1253 Çifte Minareli Medrese of Erzurum (From Cahen, 1968).



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5

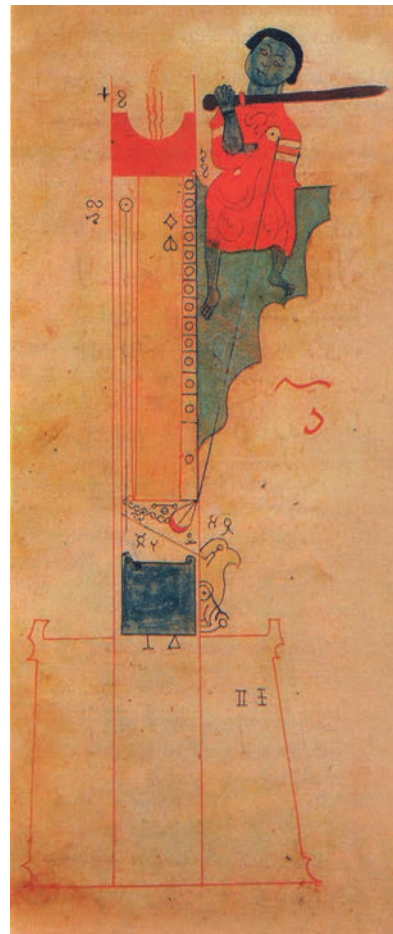


Fig. 6



Fig. 7



Fig. 8



Fig. 9

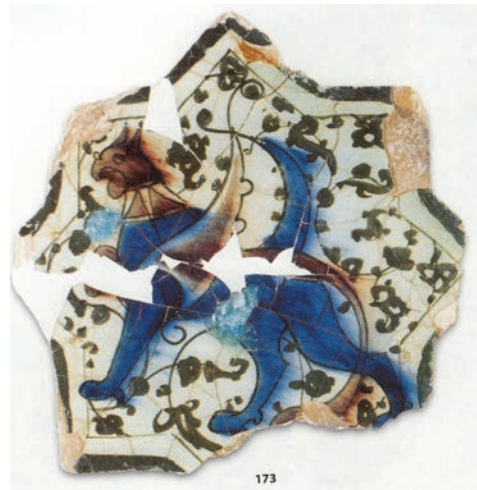


Fig. 10

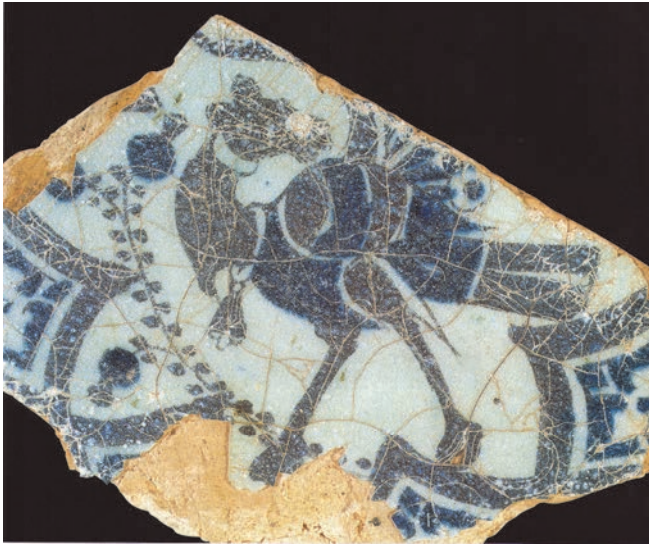


Fig. 11



Fig. 12



Fig. 13

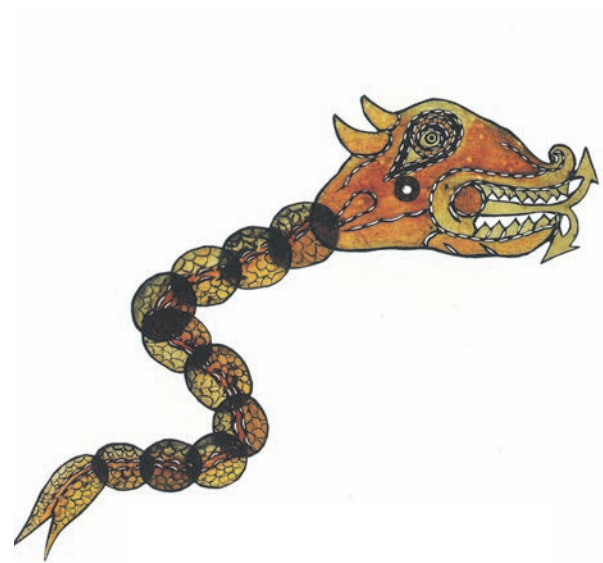


Fig. 14



Fig. 15



Fig. 16



Fig. 17



Fig. 18



Fig. 19