

Automaton

The idea of making automation animals goes back to antiquity. A flying wooden dove is said to have been made by Archytas of Tarentum during the 4th century B.C.. Archytas, a scholar and follower of Pythagoras, is considered to be the inventor of the pulley and the screw. His mechanical dove, legend has it, was able to take off, fly through the air, and then land.

Another legendary mechanical bird was an eagle constructed by the astronomer Regiomontanus for the visit of Emperor Charles V (some versions say the Emperor Maximilien) to Nuremberg at the end of the 15th century or beginning of the 16th.

The first automata about which we have any documentary information are those invented by the scholars of the School of Alexandria. Ctesibios, a constructor of clepsydras, or water clocks, is said by Vitruvius to have created "songs of blackbirds produced by the action of water...". The best known of the scholars and inventors working in Alexandria during the last two centuries B.C. were Philo of Byzantium and Hero of Alexandria. Both left treatises on the construction of automata, many of which featured animated creatures. Among these pieces, intended to offer demonstrations and proofs of physical laws such as the expansion of gases and the effects of water vapor, were some mechanical singing birds. One piece featured a group of singing birds who immediately became quiet when an owl turned to face them.

The pleasure gardens created for Robert II d'Artois at the end of the 13th century in Hesdin contained many different amusements, several of them closer to pranks than anything else; among other "joyous inventions" was a tree with birds spewing out water from their beaks.

Henri IV called upon a family of hydraulic engineers, the Francinis, to construct grottos with animated figures in his château of Saint-Germain-en-Laye. Several automaton creatures were featured in these marvelous grottos which have unfortunately disappeared; among them a dragon which flapped its wings and spit enormous quantities of water from its mouth. The fearful dragon was accompanied by a number of small birds which beat their wings and filled the air "with a thousand kind of warblings". At Saint-Germain there was also a grotto in which Orpheus played his lyre to charm many different kinds of wild animals, who seemed to become tame at the sound of his music.

The Age of Enlightenment had its animal automata, many of which entered into the category of "living anatomies", intended to imitate the workings of living beings. The scientist and inventor Jacques de Vaucanson created a famous duck automaton, in the words of its creator, an "artificial duck, which can eat, drink, digest and empty itself, clean its wings and feathers, and imitate in diverse manners a living duck". From this text, it becomes apparent that the animal was supposed to be capable of actual digestion: after it had swallowed some grains, a greenish colored mash exited the animal's body and was duly exhibited to the oohs and ahs of the public. The digestion turned out to be a trick, of course - the mash being prepared in advance and merely propelled out of the duck's body at the appropriate moment - but the fowl nevertheless became the toast of Europe during the 1740s, and making a particular impression when showed along with Vaucanson's other automata in London in 1742.

The English capital was indeed a major capital for automaton animals - as well as automata in general - during the 19th century. There some of the most famous automata shows took place: James Cox opened his elegant "Museum" in 1772. Although it would only remain open for three years, it became legendary.



A contemporary print of the exhibition of automata in London's Gothic Hall, Haymarket, in the early 19th century.

Documentation: Christian Bailly, Expert près la Cour d'Appel de Paris, Assesseur de la CEE douanière.

Animals



On the table at the far left one can just make out the automaton mouse, lizard, and caterpillar.

A standing gentleman is shown holding another rare automaton, a mechanical snake.

James Cox's chief mechanic, held a public exhibition from the 1780s until his death in 1803. Merlin also exhibited the mouse and caterpillar, as is proved by the catalogue of the sale of his museum in 1803. A mechanical snake and a "tarantula spider" rounded out Merlin's automata zoo.

The contents of Merlin's museum were purchased by a certain Thomas Weeks, who continued in the same tradition. Weeks' museum knew a great deal of success as well. After his death, his museum was dispersed. A few pieces remaining in the family, perhaps for sentimental reasons, were sold by Christie's after the death of Weeks' son, in 1864.

Maillardet, Merlin, Weeks, and all the other showmen who exhibited these automaton animals called on the best workmen of the period. They commissioned their mechanical menageries from superb artisans such as Piguet & Capt. The beauty and delicacy of the animated creatures, as well as their amusing and lifelike movements, attest to the remarkable skill of their makers.

Bibliography:

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All of London flocked to see Cox's "sing-songs", that had so captivated the Chinese Emperor. Among the creatures in Cox's mechanical menagerie were elephants, (an automaton clock attributed to Cox, with elephant was sold by Antiquorum, June 14, lot 391. Today it has been reunited with its pendant piece in Geneva's Musée d'horlogerie) a peacock, a swan, birds, and pearl-swallowing dragons.

James Cox had close ties with the Jaquet Droz family, who furnished him with many movements for his animated watches and other pieces. The Jaquet Droz made a noteworthy contribution to the world of automaton animals: they were no doubt the originators of the mechanical singing bird as *objet de vertu*, which came into vogue at the end of the 18th and beginning of the 19th centuries. Before that, however, the Jaquet Droz had made other automata, which were triumphantly exhibited in the European capitals. Henry-Louis Jaquet Droz accompanied an exhibition of the Jaquet Droz automata, held in Covent Garden in 1776. Alongside the famous androids – the writer, the draughtsman and the lady musician, was the "Grotto", which featured sheep and singing birds.

A former associate of the Jaquet Droz, Henry Maillardet, followed the trend, giving shows of fantastic mechanical pieces which greatly impressed audiences. Sir David Brewster wrote of them years later, in his "Letters on Natural Magic". (1868 ???) Maillardet, sometimes in conjunction with an associate such as the Frenchman Paul de Philipsthal, exhibited several types of objects: singing bird boxes, and precious gold, pearl, and enamel-decorated creatures such as a mouse, lizard, and caterpillar. He called these by exotic names, no doubt to raise the curiosity of the public – the Ethiopian caterpillar, the Egyptian lizard, and the Siberian mouse.

These animals must have created a sensation among the public, for several others had given them an important place in their "museums" as well. John Joseph Merlin, a brilliant inventor who had previously been