

## The Evolution of Culture and Ceramics

In 1859, 150 years ago, Charles Darwin published his theory of the survival of the fittest. This anniversary provoked numerous appreciations of his achievement. His theory of selection was perceived as a law of biology and was strenuously attacked by the churches. Outside of churches, it is generally agreed that humans have been developing by incremental changes right down to the present and were not created in a finished state. Darwin's theory was soon to influence cultural studies, as evidence of the principle of development as an evolutionary and selective mechanism can be found everywhere. Fifty years before Darwin, Lamarck had propagated the idea of the heredity of acquired characteristics (but only in the animal kingdom), and now the question arose of whether something in the field of culture was present too that could be inherited.

The question is therefore whether culture can go so deep in the mechanism of biological evolution for new characteristics that define culture to be passed on to future generations. Of course there are analogies and predispositions. For instance, it has been discovered that the tendency towards spirituality and irrational thought is located in the temporal lobe of the brain and can be inherited.

With the appearance of Darwin's theory, it was thought that Lamarck's ideas could be considered disproved. But modern science has now discovered through studies of bacteria, for example, that it has to accept the pluralism of evolutionary processes.

So how do things stand with culture? – Culture is defined as a typical way of life, i.e. a way to survive, the mental state and the values that people in a certain area have developed and that they pass on to their descendants. Culture is a social inheritance. If we think of ceramics, it belongs to material culture, of which what we are tired of hearing is true: everything is connected to everything. One of the things that apply to culture and to the theory of evolution alike is that different environmental conditions produce different species that are thus endemic, i.e. they are specific to this region. In the seventies, it was discovered that certain nucleic acids, known as domains, produce certain characteristics by participating in protein synthesis in the body. But this field of research has hitherto been restricted to bacteria.

It seems as if initially genes had dominated culture and that later humans, as creatures with an intellect, developed so rapidly that the intellect exerted pressure on the genes in a reverse of the process. And an expression was sought that works like a gene in the body, selecting information in culture and copying it under specific selective pressure („replicating“ = duplicating itself). Richard Dawkins, a knowledgeable propagandist of atheism, coined the expression „meme“ for this phenomenon in 1976. In the Oxford English Dictionary it is defined as „an element of behaviour or culture passed on by imitation or other non-genetic means“. As to the relationship of the gene to the meme, it adds that as imitative faculties improve, more new skills are developed and disseminated, leading to increased pressure to be able to copy them. And so it goes on. In a few million years, memes have not only changed out of all recognition but they have also forced genes to create brains that are able to spread memes – large brains. – The meme is also the replicator of cultural evolution. The meme that has committed to a single god is described as a successful replicator. The development of language is described as memetic evolution.

What has this to do with ceramics?

It should be taken into consideration that this is all a hypothesis, but it stands to reason that culture is driven not by a preconceived act of will but by the successful replication of competing ideas. Memes show so many analogies to genes that it is justified to speak of evolution. But above all, it is the theory of selection that applies. It is necessary to differentiate between the process with its methods and the product itself, bearing in mind that copying the methods is not the same as copying the product. Ceramics has a hard time on both counts, all the more so the closer the product comes to being art. After all, in terms of process, what can be produced quickly is better adapted to the character of the times with their rapid changes than all the effort involved in acquiring knowledge and skills as well as the material circumstances. And in terms of the product, it should radiate an air of having been dashed off brilliantly for it to be noticed by contemporary individuals, the public.

The process is ancient. If we take the Bible to hand, the originator of all crafts is named in Genesis chapt. 4 verse 22-23: it was „Tubalcain, who was a hammerer and artificer in every work of brass and iron“. In the language of evolution theorists, making objects in clay and hardening them in the fire is a continuation of stability. Until it began to resemble organic evolution, where genes can be taken over from the genetic make-up of other organisms. The creating art from earth was taken over by the memes of painting, which had a completely different tradition. This process occurred in the Neolithic Age with the emergence of painted clay vessels. There followed a diversification and geographic isolation, with the evolution of new species. All of this was like biological evolution. And new skills emerged, increasing the pressure to imitate and leading the art of the earth to a high point. They died out because in the art of survival, changing conditions led to more successful methods. In the terminology of Dawkins and Blackmore, genes were „survival machines“, transporting the replicators. We had previously termed this a predisposition, which was inherited, and adapted to the changing conditions. Some people consider the new expression to be the expression of a new world view. And it really is for anyone living in evolution theory with all his striving and endeavours.

Ceramics has lived through three new approaches which made it necessary to find new ways of survival with a change in the conditions of life: the invention of the potter's wheel, of lead glazes and finally, today, the rejection of functionality. This has been forced upon us by the market. You can compare it to sex: just as the commercialisation of sex has separated it from its reproductive function, the market has also separated ceramics from its function of utility. A great deal of this comparison is true: the satisfaction provided by working with earth and fire will not stop. It may be superficial or profound.

Does ceramics have a hereditary component? There is certainly a relationship between what is learned and what is inherited.

And because of the way society has developed, we have to accept that even if a group or an individual learns more diligently than someone less successful, he may still become extinct. Perhaps just because of the circumstances that have developed. It is often said that craft skills have dwindled in inverse proportion to the rise of mass production to take the place of skilled trades. There is no doubt that in a strictly technical sense, things become better over time. But this is only evident for technically useful items. There are many other aspects of human life that reveal genuine trends without these trends being improvements. For example, this is also true for language. It cannot be maintained that the German language of today is better than it was in Goethe's times. It is not better, merely different. It is different as a result of a changing lifestyle, which belongs to culture and is also a contributory factor to historical events. Not better, just different – this seems to be a law of history. And if we take a look at ceramics, it is really true.

In ceramics, we can see trends that resemble evolution, which are progressive in a purely abstract, impartial way. They are often like sexual selection in evolution. But it also seems to be true that many people buy something because a number of others have bought it. This is the case with best-selling books and ladies' fashions, for example. But even if the actual quality may not be neglected over sales figures, there is still an arbitrary element that decides what is successful and what is not. In marketing, we speak of critical mass when sales figures have been pushed up so high by advertising or manipulation that no further advertising is necessary. The product is a success and runs under its own steam.

Dawkins says that in the same way as genes compete to see who can reproduce best, so do memes. He has described this process in his book, *The Selfish Gene*. In this context, „selfish“ means that every gene is interested in replicating itself. This, he says, can be seen from the abrupt doubling of the DNA content. In terms of memes, this means imitation including all information by speaking, reading and instruction. Skills, behaviour and ideas. If we create something, it is in co-operation of genes and memes. This sounds simple because we have always known it, even if we did not call it by this name. But it is not easy if we ask about the mechanism. Our thinking is still so dominated by science and technology that we assume we have understood as soon as something resembling DNA for memes has been found. But culture is not controlled by genes that have no aim other than selfishness but by individuals who do have aims. Not only causality has a value in life but also making value judgements and giving meaning. In this fashion, the German cultural historian Wilhelm Dilthey contrasted science defined by explanation with the humanities defined by understanding. In its evolution, ceramics is a mirror for both – for general laws and for individuality. Sometimes one has the upper hand, sometimes the other. Goethe or Einstein.

The ideas we have, the cultural techniques we develop ultimately serve the genes. Culture ought to reflect genetic interests, for ultimately culture is there to serve the ends of human development. Genes could not predict how we use our intelligence. It is the memes that dictate how we behave. The fundamental motive force is natural selection, which affects the genes, and cultural selection that affects memes. This is how cultural progress develops. And extinction is always possible if the genes are unable to follow suit quickly enough. But there is nothing in the process of evolution that can create prior knowledge. Those of us alive today are the result of past processes of selection in past environments and we must survive this process in the new environment.

## Literature

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