

Ich bin ein Dorfbewohner: the tragedy of the commons

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Last July we moved to the museum village of Oud Aalden, where the village square was the central place, as in all Dutch Saxon sand villages. From the village square, the village shepherd brought the collected cattle to the communal pastures. At the end of the day, the sheep (or other livestock) were returned to the square. From there, each animal found its way back to its own farm and stable. New farms were also built around the village square, making the square even more central over time. Various mathematical principles are visible here (attractors, game theory, etc.). We will discuss the game-theoretic principle that later became known as the "tragedy of the commons", because this principle has for centuries determined the cooperative mentality "just behave normally, then it's crazy enough". What about that?

The community in the Saxon villages consisted of peasant families, who worked the land around the villages cooperatively. The livestock raised for wool, milk, and meat clearly had limited pastures. Each family had a number of animals and was in principle able to increase its "wealth" by getting more animals.

However, the shared pastures were not endless and if there were too many animals, overgrazing could disrupt the sheep / grass balance, and spoil the pastures and lead to poverty (none of the animals would receive adequate nutrition). Whereas a farmer could build a larger sheepfold than his neighbour, keeping more sheep would sooner or later drive the communal flock over the equilibrium point, resulting in poverty for all. Therefore, the entire community - the whole system - kept a close eye on whether individual members continued to fall in line. This mathematical principle, called the tragedy of the common, is related to the Nash equilibrium of John Forbes Nash (1928-2015), about whom the beautiful Hollywood film *A Beautiful Mind* was made.

The Saxon farms - which now have national monument status - are inhabited by people with "modern" professions. Nevertheless, we were asked whether we would seek to connect with the village character. The affordance structure (now of an intact historic farming village) is still decimating overly exuberant display and behaviour, even though the pastures are no longer used for the collective livestock to graze. the notion of "extended mind" helps to understand this.

Just as clothing can be seen as an outsourced function of the skin (keeping it warm), the monumental living environment can be seen as an outsourced behavioural and cognitive organization, referring to a world in balance, even though it may not have been rich. This is in stark contrast to today's world of 'smart technology', where, of course, the same maths applies - the tragedy of the commons - but where no one knows how individual behaviour can restore collective balance. The consequences of individual behaviour (one car ride or plane trip more or less) on the collective level of our existence have completely disappeared from view, while overgrazing of our beautiful planet is the order of the day. Every day species are dying, there is hunger and war in the less fortunate places on Earth, and obesity and overconsumption in our enlightened world.

Due to the increase in scale due to (digital) technology, we are increasingly losing sight of our "common grounds". Our behaviour becomes bizarre, almost psychotic, but decimated by social media. In these Big Tech 'village squares', we are both consumers and producers, like the sheep of yesteryear, overstimulated and overfed with hyper food, craving human contact. I enjoy our regained freedom in the Saxon Village but think of a variation on the words of John F. Kennedy: All free men, wherever they may live, are citizens of a village. And therefore, as a free man, I take pride in the words 'Ich bin ein Dorfbewohner'!