

# ONE

## **Not all energy can be measured, and all of nature cannot be weighed.**

Pan, god of the forest, is half man, half buck. He is the merry tease of the forest, and he is known for his flute made of rush, the syrinx flute. He often moves on the edge of the forest close to the open fields. When the cattle stampede in the field, Pan is the one who is making them 'panic'. When night spreads out its wing, he calms down, and you can hear his flute playing out his sorrowful, unrequited love for the nymph Syrinx. It is said about him that he is both demonic, enigmatic, and life-affirming – like nature itself. The Greek philosopher and historian Plutarch tells the following story about Pan 100 years AD, here reproduced after "Naturen lys" by Axel Haaning [Reitzels Forlag 1998]:

On the Mediterranean Sea a ship was sailing on its way to Rome. The wind fell, and the ship lay almost still with its sails slack on the bright and dead calm sea. On board, peace and calm reigned, but suddenly a loud voice was heard calling for the mate of the ship, an Egyptian named Thamus. Nothing could be seen, and those on board felt ill at ease. The voice sounded again, and neither Thamus nor anyone else on board dared to answer. When the voice called out for the third time, Thamus ventured to the gunwale and answered. The voice, which might as well be coming from the land as from the water, shouted back: "When you reach Palodes, you are to announce that The Great Pan is dead."

With Pan the demonism and poetry disappeared from nature, and Plutarch's account is both melancholy and very telling of the way Greek, Roman, and later the Nordic mythology with Thor and Odin

slowly disappeared as Christianity pushed itself forward. One after the other the old gods disappear into the enchanting world of mythology. Thor is the last to end his journey on a black sky with lightning crackling.

At the same time, this story also tells of the new conditions regarding man's relation with nature which Christianity brought with it. Focus shifted from nature – which in the antique world was populated by gods with divine powers and energies – to the inner spiritual world and salvation of the human being. Broadly speaking, it can be said about the natural philosophy of the Middle Ages that the Christian philosophy was preoccupied with turning the gaze of the converted from the physical to the spiritual world. In this process the wise church and faith builders considered nature to be dangerous because it had been the object of worship of the heathens.

It became a crucial feature of the Christian dogmatics to separate God from Nature. As the early philosophers of the Middle Ages repeat time and time again: God is spirit, not matter. God is the creator of matter, and it must be the creator, not the created, which is worshipped. For this reason the scientific disciplines which had the physical world as their subject became uninteresting. The physical nature, human nature included, was seen as obstructing the spiritual life and man's relation to God.

A few wise philosophers tried to maintain the unity between man, nature, and God, but were silenced in different ways and roughly handled. By the end of the Middle Ages this separation was a reality, and man was banned from nature. At the transition to our cultural era, in the seventeenth century, a renewed but failed attempt at maintaining a connection and relation between human being and nature saw the light of day. The limits of the universe disappeared with the Copernican worldview, and the efforts to secure the limits of the universe's infinity were shipwrecked. We can even name the date when this took place. The Italian monk and philosopher Giordano Bruno was burnt as a heretic on Campo dei Fiori in Rome February 16th year 1600.

Fourteen years prior to this he wrote the following in Bruno's fifth book from 1586 (ibid.): "The universe is a whole, infinite and immovable. One is the absolute possibility, one act, one form or soul,

one matter or body, one thing, one being; one is the highest and the best. It is not capable of being encompassed and is therefore unending and boundless, and because it is unending and boundless, it is immovable. It does not move locally, for there is no place outside of it whereto it can be moved, it itself is all there is. It does not create, for there is no other being which it could want or regard, since it contains all being. It does not change, because there is nothing it could be changed into – it is everything. It cannot diminish or grow since it is infinite; nothing can be added and nothing taken out of it, because infinity does not have measurable parts.”

The spirit of nature disappeared with Bruno and was replaced by man’s rational logic. In its place we got mechanical natural laws created by philosophers and natural scientists such as Descartes, Galilei, and Kepler. The universe became infinitely big, but not unending or indivisible like in Bruno’s universe. What were left was the inspired man and the objectified and atomised energy resource NATURE, which the natural sciences could disassemble, examine, and consume ad libitum.

This is what in 1843 made Søren Kierkegaard exclaim in irritation: “There is no need to have dealings with the natural sciences. You stand there defenceless, you cannot control. The scientist immediately starts to divert himself with his particulars, now you are going to Australia, now to the moon, now you are going into an underground cave, now up your ass to look for an intestinal worm. First you use the telescope, then the microscope. Only Satan knows who can stand it... All corruption will come from the natural sciences.”

Today on the threshold of the new millennium we have to acknowledge that the road forward is characterised by two opposing movements, continuity and discontinuity. We and our actions are determined by the behavioural patterns and posterior attitudes of the past centuries. This happens on a continuum from the clean-up after the local car painter over our resource and energy consumption to the removal of nuclear danger potentials. At the same time the road forward happens on a discontinuum, because we need to break with the thinking and behaviour that created us and our relation to nature.

For this reason we have to learn to make detours, and in this connection the words of the painter Friedensreich Hundertwasser about the straight line are meaningful:

“In 1953 I realised that the straight line takes humanity to its doom. Nevertheless, the straight line has created an absolute tyranny. This straight line is cowardly drawn with a ruler, without thought or feeling. It is exactly this line which does not exist in nature. And this line constitutes the rotten foundation of our doomed Civilization.”

We have to realize that humanity cannot follow the shortest distance between two points. We need to get used to find new ways as well as detours and wrong turns in our relationship with nature, energy, and ecology in the new millennium. We need to rethink our values and our actions, and we have to think within an ecological frame of understanding. Other and new values become important, and for this reason we must develop new patterns of action in order to handle the dualism of connection and lack thereof which the industrial and consumer society has left for us. The natural sciences have to be matched with the social sciences if we are to move forward under the conditions of this dualism.

We are balancing on a knife edge and facing the danger that the qualities which ecology offers – such as a high degree of diversity, integration, mutually developing states of dependence, flexibility, and a holistic understanding – might turn against us as rules, restrictions, and regulations. And innovation is always a precarious business.

Perhaps the Danish philosopher Poul Martin Møller’s words from 1837 can serve as consolation. He says about turbulent times when ideals and ideologies break down and are reshaped that “in those times when the old God turns away his face and the new God still has not shown his, it is only natural that twilight will prevail.”

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