Man and nature in the Middle Ages

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Introduction

If we try to define "nature" in the medieval sense, we have to consider a much wider sense than "nature" (in English) or "Natur" (in German) means nowadays. As our discussions have shown, the Russian expression ï ðèðî äà is more generally used and therefore more suitable to compare it with medieval "natura" (in Latin).

So, nature is not only the uncultivated part of environment, but also the sum of living behaviours in general, the relationship between god and human beings, the explanations of the universe and of life in particular.

In this way, I will not be able to present a full survey on "man and nature". In addition to that, this field of research in now growing very quickly, developing also many sub-disciplines. Instead of that I prefer to give you an insight in some of the possible approaches and I mostly want to focus on examples, which I will treat in more detail.

Methods of Approach

Looking at the last general conference of the European Society of Environmental History (ESEH) in St. Andrew's, Scotland in September 2001, there are quite a lot different approaches to environmental history and to nature. All of these methods emphasize specific aspects and work together with some other sciences as well. All approaches can serve to add some more knowledge to each other.

Settlement history

Not only man has his history, but also nature itself, modelled by man and climate. Landscape is changing through warmer or colder climate, and by human settlement. Looking accurately at landscape, historical and archaeological sciences are able to get some information about the history of settlement.

Archaeologists, for instance, have developed the so-called aerial-view archaeology. Looking at a field shortly before sunset from the air often enables to recognize the remains of old walls or roads. In a second step, archaeologists take a harrow, equipped with special instruments measuring magnetic fields or irregularities in the ground by Doppler sonography (ultrasound), and can clear up in this way, where former settlements have been erected – without digging into the ground.

Historians base their studies on land registers, the so-called catasters, dating from the 18th and early 19th centuries, that is before nature and settlements had been severely changed during the industrial revolution. Most of the sovereigns in this time tried to register their whole country by large-scale maps. They should serve to know more exactly about the resources and the population of the country. Between the Middle Ages and the late 18th century settlements (villages, towns) and agricultural land had not changed very much. So, the knowledge from the land registers can be combined with old charters and tax registers (the so-called *urbaria*) from the Middle Ages. Some settlement historians have also tried to take the size and the shape of fields and villages as a criterion to date them.

Climate history

Climate history does not focus on man, but on climate and nature and its development in the Holocene, that is the time after the last ice age, which ended about 12.00 years ago in Europe.

Climate historians try to reconstruct periods of warm and cold, of humid and dry weather. For the Middle Ages, they build up their theories on the one hand on dendro-chonological data, which is mostly a very hard thing to do. Using such data properly, we need a sample of about five or six different trees, which have all survived since the Middle Ages, because a warm, cold or humid climate has a different impact on specific trees and their bark.

On the other hand climate historians use written sources of very different types. Of course, a chronicler will write about a very cold and rainy summer in a different way than a private person in a diary. In addition to that, there are very individual perceptions of "cold", "warm", etc. So, climate history orientates on information concerning the time of blossoms, of vintage, of the durability of ice, and of the altitude of floods. The "normalized" data on climate are called proxy data.

One branch of climate history deals with historical earthquakes, working closely together with historical seismology. This science has a tradition since the late 17th century in Italy. Historians compiled catalogues of all historical earthquakes they knew about. The sense of these catalogues, however, had not only been a scientific, but also theological one, because earthquakes were said to be one of the omens before apocalypse.

Historical anthropology

The anthropological approach to nature is less influenced by natural science, but by literary criticism, philosophy and sociology. Unfortunately, historical anthropology had become a very popular term for anyone, who did not follow the traditional "history of data and facts", focussing on political developments. So, a clear definition of "historical anthropology" can hardly be found.

New anthropological approaches point out that man himself constructs his nature and what it means to him. Looking at literature, paintings and other documents of art, we will only be able to see, what the author wanted to write or to paint. We do not know exactly, how much he is fictional or not, how much he follows common places or not. As an example may serve a famous letter by Francesco Petrarch (Petrarca) on his ascension of Mont Ventoux near Avignon in Southern France in 1336. The letter had been declared as the beginning of alpinism, as the turning point of the behaviour towards wild mountains. Some years ago, however, German historian Dieter Groh has argued that the whole letter is a literary fiction, playing with elements taken from the Book of Confessions (*Confessiones*) by Saint Augustine. So, we do not even know, if Petrarch had been on top of the mountain at all.

Mentality bound approaches

Mentality history and mentality bound approaches explore the perception, interpretation and management of life, in our case of nature in particular. These subjective responses are always based on specific patterns of 'mentalities' or attitudes. The term "mentalities" has been introduced by the French *Annales* school, but is now often used very inaccurately. In the German speaking literature it is sometimes completely avoided. I would suggest defining mentalities as horizons of experience, and the sum of all the factors determining the possibilities (and also the impossibilities) of thinking and acting in a given society or in parts of that society. In our case this mainly concerns the perception of nature, the explanations and strategies used to handle with it, and any ideas about nature more generally. Fully reconstructing the mentalities of people in the Middle Ages is almost impossible due to the lack of good sources; therefore, I would like to introduce the term 'mentality bound' for my approach, because I will only be able to focus on a few aspects of medieval mentalities.

The first studies by the structuralistic school of the *Annales* were only partly accepted during the 80ies, but now they seem to have a revival. Most studies for the Middle Ages, however, focus on the perception of natural disasters and apocalyptic omens, because extreme situations are mentioned far more often in medieval sources than normal life.

Perceiving and Interpreting Nature

According to a model built up by Rolf Sprandel in 1972, there are three steps in perceiving and interpreting nature. In the first one man introduces myths, supernatural beings and divine impact to excuse human weakness towards nature. In the second one man perceives nature as wild and unpredictable, but lives and copes with it by using technical knowledge. In a third step he discovers nature as an aesthetic world of its own, which is made to enjoy it. Two or even all three steps were often mixed up in the Middle Ages.

Pre-Christian traditions to interpret nature

Pre-Christian religious beliefs, but also Christian traditions about the creation of nature and man can serve as good examples for the first step of Sprandel's model. I will here focus on old Germanic-Nordic traditions, which have deeply influenced medieval mentalities and culture.

The creation of the world

According to Germanic mythology there had been two different areas in the beginning: Niflheim, the eternal coldness and darkness in the North, and Muspelheim, the eternal heat and brightness in the South. In between there was the yawning emptiness of Ginungagap. This system is similar to Greek mythology, consisting of heaven (*Uranos*), nether world (*Hades*) and in between the earth (*Gaia*).

Where Niflheim and Muspelheim met each other, the first giant Ymir was created. While he slept, two other giants came out of the sweat of his armpit, and his two legs copulated to bring forth a son. All other giants derive from these first giants. The first god, Bur, came out of the ice; his son Bör and the female giant Bestla bore the first generation of the Asen gods: Odin (the principle of air), Hönir (the principle of water) and Loki (the principle of fire); in the Southern Germanic areas they were called Wodan, Wili and We. They killed the first giant Ymir (like the Greek god Kronos killed the old giants and titans). From his body they formed the world: they used his flesh for the earth, his blood for the sea, his bones for the mountains, his hair for the trees, his skull for the sky and his brain for the clouds.

When the blood of the giant ran out, it caused a tremendous flood all over the world, which killed all giants except Bergelmir and his wife, who became the forefathers of all younger giant dynasties. This story has significant parallels in many other myths: the flood in the

Sumerian Gilgamesh epic, the big deluge in the Bible (Book of Genesis, c. 7,17 – 8,22), the flood in the Greek myth of Deukalion and Pyrrha, which is reported in the "Book of Metamorphoses" by Roman poet P. Ovidius Naso. It is hard to say, whether the Germanic flood of blood had been influenced by these stories or had come up independently.

The Germanic view of the world

According to Germanic mythology the earth had been arranged in three main areas: Asgard, Midgard and Utgard.

Asgard was the world of the gods. Like the Greek Olympos it was a fortified place on a high mountain, and any of the major gods had his own fortress: in total there had been twelve fortresses (*Heim*); three of them belonged to the main god Odin.

Midgard is the world of the human beings, which is surrounded by the sea, similar to the Okeanos in Greek mythology. The sea consists of the so-called Midgard snake, whose movements are responsible for the waves.

Utgard, the nether world, is the home of the giants and not inhabitable for gods and for human beings. The mountains are waste, without any tree and cold. The inaccessible forests consist of trees made of steel, the moor lands are deep and dangerous. Beside the giants also ghosts and other fabulous beings, such as the Trolls live in Utgard.

The three worlds of Asgard, Midgard and Utgard are connected by the world ash-tree (ÿñåí ü) Ygdrasil. The crown of this tree bears heaven, similar to the Titan Atlas in Greek mythology. In this way, heaven could not crash to earth, as Celtic and Germanic people feared.

The creation of man

According to Nordic sagas once upon a time two trees were washed ashore. The one tree had been an ash-tree (ÿñåí ü) called *askr*, the other one an elm-tree (âÿç/èëüì) called *embla*. Then, three gods, Odin, Hönir and Lodur (Loki), came and carved out of the trees the first pair of human beings: a man from the ash-tree and a woman from the elm-tree. Odin gave life to them and the ability to move, Hönir gave intelligence and emotions, and Lodur formed the face of the human beings, adding the abilities to hear and to speak.

In many religions the first human beings are carved out either of wood or of clay, just according to the surrounding nature. Following the German myth there is still a proverb in German saying: „From which type of wood is he made?" (*„Aus welchem Holz ist der den geschnitzt?"*), asking for the character of a person. In the Bible, God made the first man out of clay and blew breath inside his body. This myth continues in the Jewish culture of the Middle

Ages and even of Early Modern Times. According to the Golem tale a human figure made of clay is brought to life by using magic formulas and saying the complete name of God. The most famous Golem is connected with the famous Rabbi Löw from Prague (1520-1609). Also in Goethe's play "Faust" a human being called Homunculus is created. Finally, the famous children's tale "Pinocchio" by Carlo Collodi includes the same motif as in the Nordic saga. A fairy blows life in the body of the wooden doll.

Gods

Odin (or Wodan in Southern Germanic regions) was the main god of Germanic mythology the ace of the Asen dynasty and the "president" of the council of the gods. he is the lord of heaven, the eternal wanderer, the leader during the battles, a healing magician, and much more. He knows everything and does not change at any time. He wears a wide coat, a big hat and a spear called Gungnir; on his shoulders there sit two ravens. His horse to ride during the battles, Sleipnir, had eight legs and was the fastest of all. Odin has only one eye, because he lost one to be able to drink from the well of the giant Mimir; by drinking this water he has reached unlimited wisdom. On the other hand he could fall into rage and forgot himself in such situations.

Thor (or Donar in Southern Germanic regions) had been the most popular among the Nordic / Germanic gods. He is a bit vulgar, more like a peasant than a god. He is the lord of thunder and lightning (see German "Donner" for thunder); therefore he always wears his hammer called Mjölnir. The Thursday (day of Thor) or Donnerstag (day of Donar) is dedicated to him. He is a god for the warriors, he is permissive towards women and the enemy of all giants. He is also responsible for telling the law in Germanic assemblies (*Thing*); therefore also his hammer stays alive as the hammer of the judges.

Freyr was the god of prosperity, wealth, sunshine and growth, and also the protector of married couples. The dwarfs dedicated a golden boar to him called Gullinborsti; together with him he wandered across the sky. So, the golden boar is an explanation for the sun, like Greek god Helios, who crosses the sky with a golden disk riding on a wagon. The Friday (Freitag in German) is dedicated to him and to his sister Freya.

The Germanic god Tiu(z) is an equivalent to the Greek god Zeus or the Roman god Jupiter. He had been the main god of the Germanic people and is the leader of the crowd of the died people, wearing his sword called Saxnot. The Tiustag (Tuesday, Dienstag) is dedicated to him. It is noteworthy that he had been followed by Odin as main god in Germanic mythology.

One reason could be that there had been a change in the techniques of fighting and hunting: the god with the sword had been replaced by the god of the spear.

Loki had been a very clever god from the Asen dynasty. He had helped, when creating the first human beings Ask und Embla. Later he became a bad and dark figure, who bothered the other gods so much that the other gods captured him in a subterranean cavern, guarded by a huge snake. When this snake spitted out her poison, his pain was so big that his movements caused tremendous earthquakes. Loki is also the lord of the fire. According to Danish and Norvegian tales, the crackle of the fire is caused by Loki, when striking his children. In Greek mythology the crackle of the fire had been explained by the laughing of the goddess of the fireplace, Hestia, or of the god of the fire, Hephaistos.

In Christian times Loki and his daughter Hel became equivalent with the devil, and also Mephisto in the play "Faust" by Goethe is modelled after the Germanic Loki. Half of his body is black, and half is human, like the harlequin, a name deriving from Hel and Loki. Also the English word hell and the German Hölle come from Hel. The most popular shape of the devil in medieval and early modern painting, however, follows the Greek god Pan, a monster with goats legs and horns and hair all over his body.

Ghosts and similar explaining nature

Besides the gods, Germanic mythology also introduced a large number of ghosts, elves and other supernatural beings to explain nature. The so-called Alp or mare (Mahr) are responsible for severe breathing problems during the night. These problems could have been caused by the specific living conditions: sleeping rooms for the whole family and also for all animals obviously caused a lack of oxygen. So, these ghosts took the breath away. Also Greek and Roman mythology knew such ghosts: Ephialtes, Inuus and Incubus. Until nowadays, the words for sleeping or dreaming badly, derive from these ghosts: nightmare or French cauchemar or German Albtraum.

Elves (Alben, Alfen, Elben) symbolize elementary powers in nature, such as wind and fog. They live in the water; therefore bad ghosts are not able to cross flowing waters. They became popular also in literature from Modern Times since Shakespeare's Midsummer Night Dream.

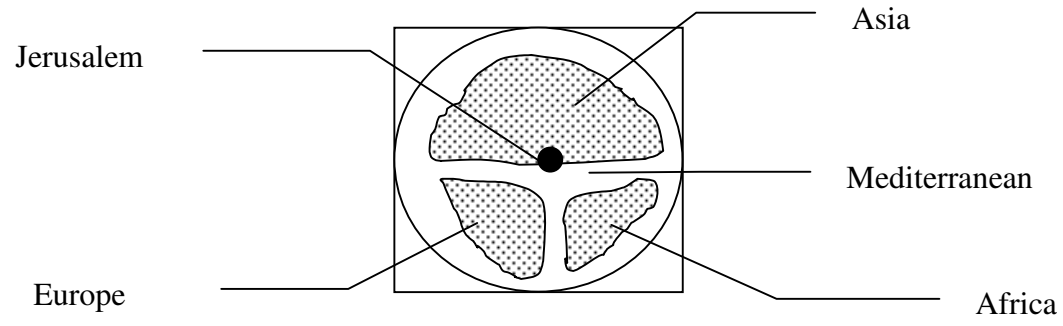
The dwarfs are similar to the elves; they symbolize the good powers of the earth. People imagined them in the shape of old human beings, living under the earth, in caves, trees or even in the houses of the human people. The wear a magic hat and guard the treasures, they honour righteousness and punish arrogance. It is said that they have vanished, when Christianity came to Northern Europe.

The giants stood for the higher natural powers, such as thunderstorms, hard snow or ice. They are the forerunners of the Asen dynasty and were replaced by them, symbolizing chaos and disorder. So, the highest god will not possess all power, before he will be able to control the powers of nature (= the giants). The battle between the old giants and the gods can be found not only in Germanic mythology: in Greek mythology the gods fight against the Titans and the Gigants; the Celtic gods have to fight against the so-called Formians, living under or beyond the sea.

The Christian view and interpretation of the world

Christian imagination of the world had been influenced both by the biblical Genesis story and the antique knowledge, such as the geocentric model built up by Ptolemaeus of Alexandria /50-120 A.D.). According to Ptolemaeus the earth had the shape of a globe, surrounded by eight concentric spheres. This model was accepted and well known among the educated elite of the late Roman Empire and was, therefore also taken up by Augustine or Isidor of Sevilla, and later on by Bede the Venerable. The Christian explanation of life and nature consisted of a macrocosm, the earth, and a microcosm, the human body, which had been equivalents to each other.

Contrary to the wide-spread opinion, the well educated people in the Middle Ages obviously still knew that the earth had the shape of a globe and not of a disk. This knowledge became more popular during the 12th and 13th centuries, when the universities constituted new centres of education. There is quite a lot evidence that the "typical" medieval maps in the shape of a disk did not depict the model of the world, but they had rather been something like "memory tables" about the knowledge concerning other continents. Normally, these so-called OT-maps (named after shape of the oceanus, the ocean around the continents, and the Mediterranean) depicted the continents Asia, Europe and Africa, but there was mostly an option for new territories, the so-called islands. Inside the continents, there were included all known towns, but also fabulous human beings or animals with several heads or gigantic feet.



The theory that medieval scientists believed in the shape of a globe can also be proved by some other observations: Within the whole Middle Ages we find the belief in the so-called antipodes ("the ones with the feet the other way round"); these are human beings living on the other side of the world. Therefore their feel look into the other direction, but they do not fall from the earth. So, people obviously did not only believe in the shape of a globe, but also in the gravidity of the earth. Another evidence can be recognized through the relationship between macrocosm and microcosm: the world is mirrored by the human body. In this model the human head (a globe!) constitutes the earth. In other comparisons the world is compared with an egg: the world is like the yellow, the white and the shell surround it like the spheres.
Late medieval scholastic philosophers, such as Albertus Magnus, Thomas of Aquino, Bonaventura, Roger Bacon or Duns Scotus, pointed out that the principles of nature can be examined, and that nature has even reached a status of autonomy.
When examining the macrocosm and the microcosm, medieval people always took in mind the symbolic meanings of a natural sign, an animal or a stone. These wide-spread beliefs can be deduced from the so-called Physiologus, an anonymously transmitted work in Greek from the 2nd or early 3rd century. It became very popular and authoritative during the Middle Ages; so, we have (medieval) translations into all major languages, amongst them also into old Russian. In the Physiologus, a great number of animals, but also plants and stones are interpreted. Most of them were compared with Christ, the Christian community or the devil. Some of the animals had been interpreted even in various ways: the snake, for instance, looses her old skin and gets a new one like the Christian after confession; she leaves her poison in the cave, when moving towards the water for drinking like Christians should do, when going to church. On the other hand the snake is a symbol of the devil: she only attacks people, who wear clothes, like the devil, who only attacks people, who have remained in their old clothes (= in their old faith). The snake is also a symbol for the martyrs: if the body of a snake is killed, her head stays alive, like the martyrs loose the life of her body, but not of her head (=beliefs).

Science and theology: Gregory of Tours

Let's now turn to an example for the mixture of official Christian position towards the world and a "scientific" view of the world: Gregory of Tours and his main work, the *Historia Francorum*: Gregory was born in 538 and came out of a highly aristocratic family from

Clermont, Gaul. He was well educated and became bishop of Tours, the city, where also the Frankish "national saint", Martin, had been. As a bishop he took part in actual politics as well, for instance in opposition to the bad king Chilperich (575-584). He died in 594.

I will now focus my interest on natural abnormalities, but I will leave away diseases and epidemics except the ones related in a straight context with the disasters. Disasters and epidemics play a major role in early medieval historiography and hagiography - and especially in the works of Gregory. When examining them one would have to look at all the miracles concerning the healing of diseases, and that would lead us too far away.

Analyzing all the reports concerning natural disasters and natural abnormalities we are able to emphasize the cut between the fourth and the fifth book. For the latter books (HF 5-10) Gregory is eyewitness or at least contemporary. He himself emphasizes this cut by inserting a preface to book 5, which is very pessimistic: Gregory complains that he has to write about all the quarrels between brothers, about moral decline, and so on.

There are quite few reports concerning natural disasters and abnormalities in the first four books. In some cases one might suspect that Gregory just took a source for that disaster and cited it nearly verbatim. Let me point out some interesting passages. In the year of 534 a war between some members of the Merovingian family broke out: Childebert an Theudebert wanted to attack their brother Chlothachar, who trusted in God although he seemed to be inferior. For Clothachar's support God sent heavy rain and a thunderstorm over the army of the other ones whereas Clothachar was unaffected by the rain. At the end the aggressors had to do penance.

The story may remind one to the famous rain miracle of 172 A.D.: During his war against the Marcomanni and Quadi in Bohemia and northern Austria the Roman Emperor Marcus Aurelius came in severe affliction. According to Cassius Dio (71, 8-19) and other sources the Quadi were rejected by heavy rain that occurred after the Christian Roman soldiers had prayed to their God for help. There is no evidence that Gregory might have imitated this miracle, yet I am quite sure that he did not even know the primary sources. But the parallels are striking.

Otherwise there are some brief accounts concerning cosmic appearances and atmospheric abnormalities in the whole work. Normally, they announce the death of a king, an epidemic or other negative events, like Gregory explains (HF 9, 5*): signa apparuerunt, quae aut Regis obitum adnuntiare solent aut regiones* (!) *excidium.*

In the second part of the *Historia Francorum*, the "contemporary history", the strongly chronological distribution of the accounts becomes evident through an annual summary

chapter containing all epidemics, atmospheric abnormalities and natural disasters of a year. The reports, therefore, are mostly short and similar to annalistic sources. Gregory himself, however, avoids a connection between the events. He clearly distinguishes after the pattern of: "In Paris there was …, in Angers there happened …, in Lyon a … took place".

Whereas such summaries are missing in the early books, they are regular from book 5 and 6 onwards. Some interesting passages from the fourth and the fifth book represent a kind of transition: The related disasters and epidemics serve as omens for death and war. A connection to the political circumstances seems to be set consciously. Gregory sticks together a chain of natural disasters and epidemics (HF 5, 33-36): Several floods in different parts of the Frankish territory, fire and lightning in the sky, some thunder that could be heard over 50 miles, an earthquake, fires that God might have sent. It is interesting that Gregory is obviously not sure of that (*forsitan iussione divina*). In addition to that there was seen that real blood came out of sacred bread. Up to this point the summary is not political. But then Gregory appends the account of a wide spread dysentery epidemic in 579 or 580: Most of the victims were punished for their sinful life, as Gregory remarks. Among them there were also the little children of king Chilperich. Therefore queen Fredegunde suggested to do penance and to destroy the tax rolls. It is Gregory himself who speaks through the mouth of queen Fredegunde. In this way he repeats some of the aspects from the pessimistic preface to book 5 and complains the moral decline by presenting several examples - the royal Merovingian family, a landlord and a bishop.

This passage concerning events from 579 or 580 in the last one in which natural abnormalities and epidemics are connected with Frankish politics. All of the following annual summaries are non-political, but the interpretations given by Gregory sometimes are quite useful for the analysis of popular beliefs. Gregory, for instance, tells us about rays of light coming out from a dark thundercloud.. This sign caused fear among the people as it was interpreted as an omen for a plague (HF 8, 17: *Quod signum magnum nobis ingessit metum. Operiebamur enim super nos aliquam plagam de caelo transmitti*). Some chapters later (HF 8, 24) Gregory inserts the story of two islands that went destroyed by a fire coming from the sky. Finally the islands were swept by the sea. Thus the people thought that the rays from the thundercloud were just caused by the reflection of that fire. Gregory, thus, provides a "scientific" explanation, without any political connection or a relation to an engagement of God.

The impression that Gregory had been quite interested in nature and that he had made many observations of himself, is proved by a small work called "*De cursu stellarum ratio*" about the position of the stars. His observations are obviously based rather on his own experiences

than on antique literature. He uses the position of the stars to find out the time the monastic prayer during the night. Only the comets seem to be suspicious to him for announcing something evil, either the death of a king or a disaster for a country.

Thus, we may deduce an interesting mentality-bound conclusion: Gregory consciously avoids the connection between natural disasters or epidemics with political circumstances, especially when he writes the history of his time as a contemporary. This combination, thus, can be detected as a deliberate one, as an intentional construction of what the author wanted to be seen as true history.

Acquainting with Nature, Submission to Nature

Cultivating landscape in the Middle Ages

Since the late 7th century population in Eastern and central Europe began to grow. The old regions of settlement inside fertile basins and along the riverside became more and more crowded. Therefore, new land had to be cultivated, especially in the 8th and 9th centuries. This cultivation was partly organized by the peasants themselves, partly by the landlords, both lay and clergy. Large forests were rooted out and transformed into agricultural soil.

During the High Middle Ages, that is between 1000 and 1250 A.D. population even grew more. Also the clearing of woods and the enlargement of agricultural land was continued. Due to the increase of population the prices for grain rose slowly. In this way, a hardly populated wild country with large forests and marsh land became cultivated.

The cultivation was organized by the so-called cleaning masters (in German Reutmeister). He tried to win peasants for his enterprise and for the construction of new settlements. The peasants, however, could expect better leasing conditions and an exemption from any taxes during the first years of the settlement. In this way, most of the expenses and of the work was done by the new settlers. Besides these well organized cultivation projects also a non-organized cultivation took place. People rooted off smaller woods and then erected single farms.

During the High Middle Ages agriculture was also influenced by technical innovations: better ploughs, wagons, bridle and other tools caused a more effective cultivation of the fields. In the 12th and 13th centuries the so-called "three field cultivation" (in German Dreifelderwirtschaft) brought a more sensitive usage of the soil: the peasants changed between summer grain, winter grain and Greenland in a regular rhythm.

From the beginning of the 14th century onwards, however, this development of settlement, increase of population and agriculture reached its limits and even beyond its possibilities. Several bad harvests caused famine all over Northern Europe in the second decade of the 14th century. In many regions of Europe people had tried to cultivate also "dangerous areas" for agriculture, such as in the high Alps or in the plains near big rivers. So, these fields were also threatened by natural disasters: by avalanches, by floods, by storms and heavy rain, etc. In some regions the soil had not been very suitable for agriculture at all, and therefore it had been extracted too much. Woods had been cut down so extensively that the ground-water

level seemingly decreased severely. In addition to that, oak-wood pasture, the main basis to feed the pigs, had to be reduced.
Many settlements in dangerous areas, such as on the riverside, in very dry and in high Alpine regions, had to be given up again. Nowadays, the so called "waste land research" (in German Wüstungsforschung) has developed as a sub-discipline of settlement history to find out the areas of former settlements, using archaeological and onomastical methods.
Finally, Black Death caused an extreme impact on the demographic development: according to accurate estimations, about a third of the population died in most of the regions in Europe. So the socio-economic and demographic system was disturbed far more than in any other time of documented history. To compare: during World War II, about fiver percent of the people in Europe died as soldiers, as civilians hit by bomb attacks, famine and diseases, as Jews and other persecuted groups captured and killed in the concentration camps of the Nazi regime. This comparison should not play down the cruelties of World War II, but should show the dimension of Black Death epidemic between 1347 and 1352. Anyway, late medieval society and economy needed nearly one century to surmount the consequences of Black Death.

Man and the woods in the Middle Ages

In the Early Middle Ages most parts of continental Europe was covered with large forests. In this way, the cultivation of antique Roman times had been nullified except the areas of the still existing towns in Gaul. The woods mostly consisted of oak (äóá) and beech (áóê) trees and were open to the public to feed pork and cattle. According to the old tribal law collections it was forbidden to cut these woods downs, unless it was of public interest.
In the High Middle Ages more wood was needed for the construction of houses and fences, for heating, for tools, for furniture, for casks and other vessels, for sledges and wagons, for mills, for mining, for coal and glass production, and many other things. Besides the wood itself also the bark of the trees was used for tanning; resin was an important material to make ships and roofs tight. So, people cut down large woods during the enlargement of settlement areas, but on the other hand they watched accurately not to loose the basic material for most of the things of their daily life. In particular around the big German towns, it was forbidden to cut down the big woods belonging to the urban community except with a special permit of the authorities. So, these woods have survived until nowadays, such as around Nuremberg, Munich and Frankfurt. In addition to that, woods were protected, because they stabilized the soil and gave shelter against heavy storms and avalanches.

Most of the woods originally belonged to the king himself and were then given to the landlords or to the towns, whereas the so-called rural allmend woods, which belonged to the whole rural community, became less and less. The aristocratic landlords used the woods for private hunting.

Man and the rivers in the Middle Ages

The rivers had been both a guarantee for wealth and prosperity and a threatening enemy in the Middle Ages. So, there is hardly any bigger town in the Middle Ages, which is not situated along the riverside, normally, where the river had been easily crossable on a bridge or by boat. In this way, these places became important junctions, where merchants going by ship and going by wagon through the countryside met. The river itself constituted the easiest way of transportation, especially because the merchants could avoid to cross high mountains or deep forests in this way. Some goods, such as salt from the Alpine salterns or woods, were transported only on the rivers.

The river also became very important for urban economy: the bridge was a place, where merchants and other travellers had to pay a toll; mills were powered by water, products were brought on ships using the river, and many other crafts needed water for producing their goods. Some crafts were even forced by the urban authorities to settle outside the city walls near the water, such as butchers and tanners. The Ponte Vecchio in Florence across the Arno river is nowadays famous for the jeweller's shops in the houses erected on the bridge itself, but in the Middle Ages and in Early Modern Times these houses belonged to the butchers, who could throw away their waste directly into the river. Although this attitude does not seem very ecological and hygienic to us, but for the Middle Ages it constituted a big improvement not to throw away his waste just into a hole behind the house, into the town-moat or on the streets.

Water was also necessary for the support with drinking water, and finally to fight successfully against big fires inside the towns. Most of the towns were mainly built of wooden or at least partly wooden houses, but people handled with fire inside their houses: for cooking and heating, but also for several crafts. So, most of the towns were frequently threatened by "self-made" fires, by lightning or by fire attacks during a siege. Only from the Late Middle Ages onwards, people started to build up their houses of stone, if they were rich enough.

Man and the sea in the Middle Ages

The sea played a similar role to medieval population as big rivers. So, people behaved towards the sea with much respect. They settled along the seashore or some kilometres away, where nature was suitable for a natural harbour and secure against storm floods. Due to the lack of exact navigation instruments merchants normally took a route along the seashore.

The sea was also used to catch fish, to collect seaweed to dung the fields, and in particular to produce salt. Salt had been the most important product not only as a spice, but especially for the conservation of fish, butter, cheese and meat. Sea salterns have not changed their way of production since Antiquity and the Middle Ages. In all countries situated along the European Atlantic coast and the Mediterranean we can find historical salterns, especially in France, Spain, Portugal, Croatia and Greece. The quality, however varied a lot due to the pollution with sand and dust.

The saltern had firstly been under the rule of feudal landlords and monasteries, but from the 12th century onwards the sovereigns themselves tried to get the power upon them. They erected a monopoly for salt and also salt taxes. The very end of the Middle Ages, that is from the 14th century onwards, can be defined as the "economic period" with a severe concurrency between the salterns all over Europe.

In Southern Europe, salt was produced in salt gardens. They were erected on flat seashores, in particular near the mouth of big rivers. The smaller ones were only two hectares big, but the biggest ones could reach up to 1000 hectare. They consisted of several basins and dykes in between. The basins were regularly flooded by high tide. The salted water circulated from one basin to another, becoming more and more concentrated. When most of the fluid water had been evaporated, the remaining salt started to crystallize. Finally, it was put out with long rakes. In Northern Europe, in particular on the British Isles and in Scandinavia, salt was produced by decoction, due to the short period of warm and sunny weather.

Coping with Natural Disasters and Diseases

It is the nature of many narrative sources, especially of those produced in the Middle Ages, to find only the unusual worth reporting. Therefore, the question of how people in the Middle Ages coped with natural disasters is necessarily linked to very extreme situations, but because of this, it may be answered more easily than that concerning the relationship between man and nature in general.

Due to the great number of lacunae in research on natural disasters, a generally accepted definition of what was a disaster and what was not is still lacking. An abnormal natural event was not automatically a disaster, if people were not hurt. In the search for a definition of the term 'disaster', further aspects of the perception, interpretation and management of disasters should be highlighted:

1. The **helplessness** of people trying **to cope with the damage with the available means**. This criterion is still one the of the most relevant ones for the emergency forces when declaring an event a disaster.
2. People's **helplessness** not only in coping with the events but also **in explaining them**. Even nowadays something might be perceived as a catastrophe if there is no proper explanation.
3. The **unexpectedness of the event**. Extraordinary natural events, which people are in some case used to, are seldom perceived as a disaster - or only if the number of victims is enormous. There are, for example, regions in southern Italy with several earthquakes a year and a tremendous one once in a person's life time. So the people there have developed a very specific way to deal with the earthquakes. The same happens to all of the cultures situated along big rivers: the river is both a guarantee of fertility and prosperity and a threatening enemy.
4. The **direct or indirect affliction**. This aspect probably plays a more important role nowadays than it did in the Middle Ages, when it seemingly hardly mattered, whether the disaster happened in the neighbourhood or far away. The reason for this may lie in the symbolic meaning of such events.

Earthquakes (the example of 1348)

Among natural disasters, earthquakes are far the best recorded by written sources, presumably because they are something absolutely unexpected, even in regions with high seismic activity.

According to the Bible they were a sign accompanying the death of Jesus Christ and announcing the apocalypse. The earthquake of 1348 is extremely well documented, that is in more than 170 sources, mostly because it was connected with reports concerning **Black Death**. The connection with Black Death is, therefore, an advantage, but it has also caused several problems of interpretation, particularly because the information concerning one event was mixed up with the information concerning the other. We will have to ask if, in this case at least, the assertion that natural disasters were perceived as a divine punishment simply derives from this coincidence. We will also have to ask, if fear – as a social and socially constructed phenomenon – was really the crucial element of the perception, interpretation and management of the disaster.

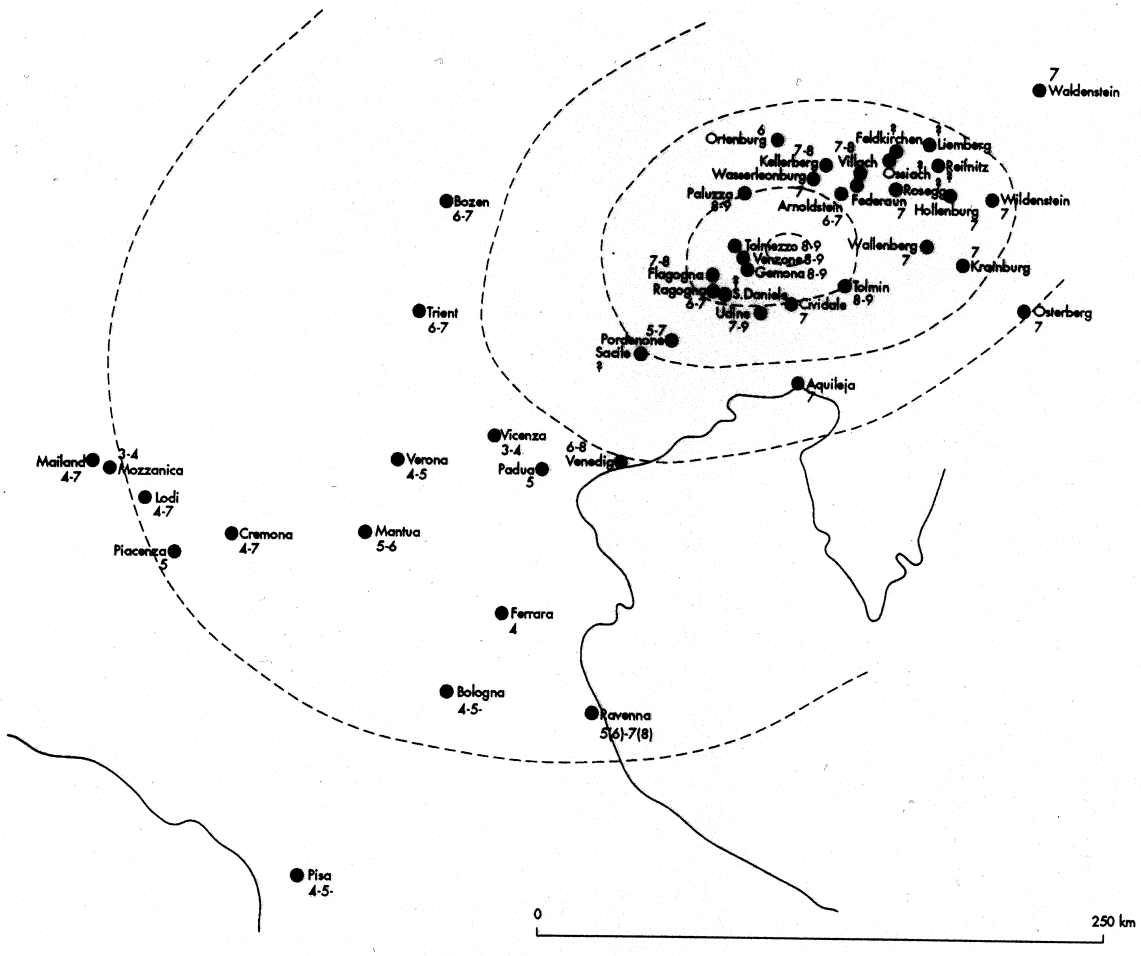
I want to focus on a well documented example, the earthquake and landslide of 1348 in the area of Villach, Carinthia. In the last 20 years two challenging new studies on the earthquake of 1348 have been published, using very different approaches. In 1981 the German historian **Arno Borst** took a partly mentality bound approach to the disaster: influenced by the French *Annales* school, he read the written sources 'the other way round', focusing not on the records of damages, but rather pointing out the behaviour of the people when faced the earthquake, subsequent landslide and flood. As a historian, however, he could not base his study on modern seismological studies, and failed to build up a 'system' for his new and extraordinarily interesting observations. But he himself encouraged other scholars to examine Alpine mentalities by analysing natural disasters.

In 1992 **Christa Hammerl** in her Viennese Ph. D. thesis tried to reconstruct the earthquake, based on the numerous reports concerning the concussions in the epicentre and in the periphery. Comparing these results with similar earthquakes in recent years – such as the destructive earthquake in Friuli in 1976 – Hammerl tried to compose a macroseismic map to reconstruct the intensity and the epicentre of the earthquake.

Hammerl's study **reconstructed** the specific events connected with the earthquake of January 25th 1348: according to her findings the epicentre was not near Villach in Austria, but in Friuli in Italy, east of Tolmezzo and Gemona. The intensity could have been around 9 or 10 on the Mercalli-Sieberg scale, meaning that the vibrations caused extreme damage to the buildings and put the people in a state of panic.

To describe earthquakes there are two different scales for measuring them: the first scientific scale was built up by Italian seismologist G. Mercalli (1850-1914); it consists of 12 steps describing the intensity and the results of the earthquake. An earthquake destroying most of the buildings and causing panic among the people would, therefore, classify an earthquake as

9-10. This scale has been improved by Austrian seismologist Sieberg and is now in use under the names MM scale (modified Mercalli scale) or MSK scale (Medwedew-Sponheuer-Karnik scale). The so-called Richter scale, however, named after the American seismologist Charles Francis Richter (1900-1985), measures the energy of an earthquake and is therefore an open scale. As the Richter scale needs modern instruments to measure the tremors, we can only use the scales basing on Mercalli for historical seismology.



The tremors of the main earthquake and the numerous smaller ones that followed were felt in all parts of northern Italy and in the whole of Austria, as well as in Bavaria, Bohemia and Slovenia. They began in the early afternoon of January 25th and lasted for about two minutes. We know this detail from a remark of Giovanni da Parma, a prebendary of Trent: he was able to pray three Our Fathers and three Ave Marias without any hurry. The earthquake also caused some fires in Villach and a tremendous landslide of the nearby Dobratsch mountain temporarily blocking the Gail river between Arnoldstein and Villach until the new 'dam' broke flooding and partially destroying several villages and the town of Villach itself.

At this point the possibilities for, and interests of, scholars focusing on reconstructing historical seismology peter out. I want to show now, how a mentality bound approach is able to bring up new results by focusing on the perception, the interpretations and the management of the disaster. Let me now turn to the contemporary reports themselves. Due to the limited time I can only focus on a small selection of sources and aspects.

In this study the term '**perception**' mainly refers to what was individually or commonly experienced, but less to what damage was perceived. Observations of people's **physical behaviour** are only rarely found: Albert von Strassburg (Count Albert V of Hohenburg, 1303-1359) mentions that the people suffered from 'vertigo, the shivers or lumbago'. Similarly the 'Annales S. Stephani Frisingenses' ('Annals of Weihenstephan near Freising/Bavaria') noted that they 'wandered through the streets and seemed to be out of their mind; others had difficulties standing on their feet'. Unfortunately it is not clear if the author was describing the human reactions in the epicentre itself or in Freising, which was part of the wider periphery.

A very detailed and interesting report was given by the Florentine citizen **Giovanni Villani**, who died of Black Death in 1348, although his extremely rich chronicle was continued after his death by his brother Matteo. Regarding the earthquake he cites a letter from Florentine merchants written in February 1348. They had been in the Friulian capital of Udine during the earthquake. According to them the bankers of Udine were frightened by such tremendous miracles and as a sign of remorse they forgave the interest of their debtors for eight days.

Some twenty years after the earthquake the Italian humanist **Francesco Petrarch** mentioned his experiences of the earthquake in a letter directed to the archbishop of Genoa, Guido Sette. Petrarch had been in his library in Verona when the earthquake took place:

> ... the day had nearly come to dusk, when vibrations arose so tremendously in large parts of Italy and Germany that a lot of people, who did not know about such tremors, thought the end of the world would be near. I was just sitting in my library in Verona at this time; although I knew something about such things I was dismayed at this sudden and unusual event. The pavement trembled under my feet; when the books crashed into each other and fell down I was frightened and hurried to leave the room. Outside I saw the servants and many other people running anxiously to and fro. All faces were pale.

It seems that Petrarch coped well with the earthquake – in contrast to the common people of Verona. But on the other hand his report is difficult to interpret: about two decades had passed since the disaster when he wrote the letter. So, he had much time to digest and reflect on the information. In addition Petrarch's attitude represents a new way dealing with nature during the early humanistic period. We have to ask, therefore, how representative and, in fact, how applicable to common mentalities Petrarch's memory was.

It was also noted by a few writers that the **bells started to ring** in several towns situated in the periphery of the earthquake without any human interference. All of the reports, which concerned the Bavarian monastery of Weihenstephan near Freising, and churches in Venice and Trent, seem to have been totally independent of each other and were written by eye-witnesses. But why did the unintentional ringing of the bells cause so much attention? Bells had several different functions during the Middle Ages and Early Modern period: they were rung to call people to prayer, to warn them against danger or to drive the danger away. If we bear in mind the wide-spread idea that the apocalypse would be introduced by an earthquake, the ringing of the bell could have triggered such associations. On the other hand this interpretation is not found in many of the sources, although – or perhaps because? – all authors, both clergy and lay people, knew about the omens of the apocalypse. Did the authors leave out this people's view in their reports, even because they interpreted the disaster as divine punishment?

So, the perception of the disaster is also influenced by the **specific interpretations** of it (and vice versa), which constitute the second important aspect of a mentality bound approach. Giovanni Villani, himself a victim of Black Death in 1348, interpreted the earthquake as an omen for misfortune, pestilence and the end of the world. Relying on the letter from the Florentine merchants, he emphatically referred to the remorse of the bankers in Udine. But it is noteworthy that this only explicit reference to the end of the world stems from merchants, that is from lay people rather than the clergy. Guglielmo Cortusi of Padua in his chronicle, composed between 1315 and 1356, also construed the earthquake as a trial and a sign for return, but he may have mixed up the disaster and the pestilence. God would intend not the death of the sinner, but his conversion. Therefore He would threaten and beat the human race, but He would not exterminate it. In his 'Chronicon Mutinense' ('Chronicle of Modena') Giovanni da Bazzano echoed the opinion of three Augustinian eremites from Germany, who had been travelling through the disaster area. According to them the earthquake had been caused by the sinful lives of people there. Aside from these sources, however, the interpretation that God wanted to try or to punish the people is rarely found – in spite of the repeated references to Black Death. It is remarkable that the motif of God's rage is found more frequently in sources on the earthquake of 1348 dating from Early Modern period. Therefore we have to doubt that the interpretation of natural disasters as a sign of divine punishment was always present during the Late Middle Ages, especially as there was much uncertainty among the people because both good and bad people were killed in the earthquake.

This ambiguity about how to interpret the disaster is reflected in numerous reports on the destruction of the **parish church in Villach**. During the sermon many people, allegedly 500, were killed. This experience obviously upset other people in a special way, because even a pious life apparently did not protect them from death during a disaster. At this point the usual concepts of interpretation also collapsed. During Black Death this problem returned: did God punish both the good and the bad? It is remarkable that we do not find any moralizing commentaries except for one: the seemingly unique assertion of Giovanni Villani and the Florentine merchants respectively that in the town of Villach all buildings were destroyed except the house of a righteous and charitable man. However, even though moralizing commentaries are mostly lacking, we may not conclude that there had not been such interpretations at all, but in any case we may consider a special meaning of it. Was it a sign of general desperateness or even bad consciousness?

In the 14th century the horizons of '**rational interpretation**' of events such as earthquakes ranged from the reference to specific constellations of the stars to Aristotelian and scholastic concepts. All of these can be seen clearly in the 'Buch der Natur' ('Book of Nature'), the first natural history in middle high German, written in 1349 by Konrad of Megenberg (1309-1374). The author refers to the earthquake of 1348 in great detail and provides several explanations.

> You should also know that the earthquake causes many miraculous things: a vapour coming out from the earth by the earthquake is responsible for transforming human beings and other animals into stone and in particular into pillars of salt. This mostly happens in the mountains, where the people are digging for salt. ... This miracle is taught by the masters Avicenna and Albertus [Magnus]. I was told by master Pitrolf, the chancellor of duke Friedrich in Austria, that on some alpine meadows, situated in the higher mountains of Carinthia, about 50 petrified men and cattle had been found. Even the milkers would sit beside the cows, both transformed into pillars of salt. Another miracle: due to the earthquake fires may come out of the earth, so that towns and villages will be consumed by it. This fact is caused by the fires inside the earth. A third miracle: during the earthquake sand and dust will come to the surface, so that a whole village becomes absorbed in it.

His theories were based on the concepts of Aristotle and other Greek philosophers, whose doctrines were newly disseminated at the occidental universities by the scholastic scholars Albertus Magnus and Thomas of Aquinas in the 13th century. Konrad proceeded from the assumption that vapours, the so called πνευμα in the works of Aristotle, would thicken and putrefy in the interior of the earth. During an earthquake these vapours would rise via rifts to the surface and cause death. The strange report on the transformation into pillars of salt is

presumably based on the story about the transmutation of Lot into a pillar of salt, preserved in the Old Testament. As this is unlikely to have really happened in 1348, perhaps the author intended to describe the tremendous anxiety of the people during the events.

In another treatise Konrad dealt with the connection between the natural and the political or historical causes of earthquakes and pestilence. In addition to the natural processes, he supposed the rage of God to be present because of the incompetence of the sovereigns and the general moral decline. The disaster, therefore, would be a challenge from God to manage it through truthfulness and righteousness. In his revised 'Chronica Boemorum regum' (the 'Chronicle of the Bohemian kings') Franz of Prague argued in a similar way, but he took the argument the other way round: Bohemia remained mainly unaffected by the disasters because of the wise government of king Charles IV

Among the common people, however, there was another wide-spread belief, disseminated by 'babbling old women, who presume to be very wise', as Konrad critically remarked: they believed that there was a big fish called Celebrant under the earth's crust. This fish was supposed to put his tail in his mouth, and when he did this the earth trembled.

The interpretation that the disaster had been caused by the Jews is rarely found. When Konrad of Megenberg discussed the earthquake in his 'Buch der Natur', he only mentioned in general terms that the Jews were 'the enemies of our wives and all Christian'. In his so-called 'Österreichische Chronik von den 95 Herrschaften' ('Austrian chronicle of the 95 reigns'), Leopold Stainreuther imputed the poisoning of the wells to them; he also reported pogroms in the Rhine region. Both accounts, however, can be linked with Black Death and with anti-Semitism respectively, but not with the earthquake as much.

Let me now come to the **management** of the disaster. We might also ask if we should attribute some of the reported facts to the earthquake or to Black Death. According to the early modern 'Historia di Bologna' ('History of Bologna') by Cherubino Ghirardacci the people fled from the towns to the countryside. Perhaps the earthquake and Black Death were mixed up here, as we know from the 'Decamerone', the master work by Giovanni Boccaccio, that the upper class citizens left the towns to find shelter and to be safe from the epidemic in the countryside.

A unique account concerning acts of penance poses a similar problem: in the so called 'Kleinen Klosterneuburger Chronik' ('Little Chronicle of Klosterneuburg') dating from 1428 we read about **self-flagellations** among the common people, but even in this case we may have to presume that the people's reactions towards the natural disaster and towards the pestilence were mixed up. Collective penance and flagellation were quite common in all

accounts of Black Death, because the flagellants' movements became a general European phenomenon within a very short time, but presumably this had nothing to do with the earthquake as such.

Charters relating to the situation after 1348 in the area of Villach show that the earthquake, fire, landslide, flood and pestilence were experienced as tremendous calamities, but people tried to rebuild their lives as far as possible. The reconstruction proceeded very slowly, partly because of Black Death and its big demographic upheaval, and partly because Carinthia was not a well organised, homogeneous territory at that time. The city of Villach belonged to the bishop of Bamberg in Bavaria, whereas the patriarch of Aquileia, situated in northern Italy, was responsible for the spiritual affairs of the region. Both were far away from the epicentre of the earthquake. They granted some privileges, such as an indulgence to be acquired in the destroyed Benedictine monastery of Arnoldstein, and the citizens of Villach repeatedly got an exemption from taxes, provided that they restored the destroyed city walls. These sources do not contain any judgement, interpretation or attribution of guilt. Only the 'tremendous might of God and damage, which occurred to the city of Villach by the earthquake and the following fire' is mentioned. However, the damage of the earthquake to the buildings remained visible even 20 years later.

Thus we do not know very much about the management of the disaster and there are absolutely no reports on its mental management. Nevertheless we may suppose that the disaster was remembered for generations, because it has been inserted in general reports about earthquakes even in the 16th and 17th centuries.

So, the analysis of the well documented earthquake of 1348 has shown that the question of how people dealt with natural disasters in the Late Middle Ages is much more complex than suggested by earlier studies. The experience of the tremors led to very different observations and to numerous interpretations. It only partly depended on the social background of the author or the sort of sources as to how these experiences were perceived. Therefore it is difficult to ascertain whether the earthquake – and connected with it Black Death – was interpreted as a trial, as a punishment by God, or as part of imponderable nature. The extant sources do not really favour the assertion of an interpretation the earthquake as divine punishment, but rather suggest that this terrible event constituted, nevertheless, an exceptional and unexpected part of everyday life.

Black Death 1347-1352: reactions and explanations in late medieval society

In 1347, Black Death was brought from the Crimean town of Kaffa to Genoa, Venice and other important harbours in Northern Italy. During the following five years this epidemic killed about a third of European population. Only very few regions, such as nowadays Belgium and the city of Nuremberg, remained free of victims.

I do not want to focus on the epidemic itself, but on some aspects of reaction and explanation. Black Death was often seen as the legitimate answer of God towards the infinite number of human sins, it was like a paternal chastisement or punishment. Theologians mostly cited passages from the Old Testament (for instance the Book of Ezechiel, c. 23, 46-48) and from the Revelation of Saint John (c. 17-18). According to these passages, prostitution, fornication, sodomy and other forms of lewdness were seen as the main vices. On the other hand, the violation of God himself, including negligence in observing the Sundays as the days of God, was seen as a main reason for God's rage. Finally, gluttony and other attitudes of luxury.

Scientists and doctors, however, were searching for supernatural reasons, because they did not know anything about the origins of Black Death and the way its incubation at all. So, they believed in the impact of the stars, of corrupted air and other signs, which were sent by God to warn the human race. "Heavenly signs" could be special constellations of the stars, comets, meteorites, eclipses and even rainbows. "Aerial signs" were a frequently changing weather, strong wind from the South and heavy storms in general, remarkable constellations of the clouds and badly smelling fog, but also birds appearing suddenly. Among the "water signs" people interpreted floods, the corruption of wells, and the frequent appearance of frogs and toads as bad omens. Finally, "terrestrial signs", such as the eruption of volcanoes, earthquakes, mice, grasshoppers, ill-conceived animals and human babies and many other things, could announce God's rage. Even Jesus Christ had announced that the crash of the Temple of Jerusalem would be introduced by earthquakes, epidemics, diseases, famine and other bad omens (Luke Gospel, c. 21, 5-11). So, people "had to believe" in such signs.

People tried to respond to these signs by personal piety. They dedicated their properties to the church and to monasteries, they started pilgrimages to the most important centres, such as Jerusalem, Rome and Santiago de Compostela in the very Northwest of Spain, where the bones of the apostle James (Jacobus) were said to be buried. In addition to that, the urban authorities tried to "collectivise" individual piety by organizing frequent processions, by forbidding most of the games on Sundays, to regulate drinking and dining societies, and publishing many more restrictions.

The flagellant's movement was of the most remarkable manifestations of remorse during Black Death. The apocalyptic mood had favoured the story about a "heavenly letter", which had been brought to Jerusalem by an angel. In this letter, Jesus Christ himself had expressed his rage about the sins of the human race, but he had also announced salvation for all the people doing real remorse. So, people came together to walk through the countryside in long processions, lashing themselves with a whip. One flagellant's procession lasted exactly 33 and a half days, according to the 33 and a half years Jesus Christ had been living on earth. Before entering the procession people had to confess their sins and to swear that they would follow very strict rules, such as not to wash and to shave themselves. Normally they were only dressed with a black or white linen, and a big hat on their head. When they came into towns and villages, they lashed themselves singing songs in their mother language. Female flagellants were separated from male and did remorse in their own processions.

In the first years of Black Death, these flagellant's processions were appreciated also by the church and by common people, but then these processions got a bad reputation. On the one hand, Black Death was often brought to new regions by themselves, and on the other hand also criminals had joined the processions to enter the towns. Finally, pope Clemens VI himself procured an expert opinion at Sorbonne University in Paris. The theologians there came to the result that the flagellant's movement was acting outside the official catholic doctrine. So, the flagellants were forbidden by the church and vanished as quickly as they had arisen.