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The Reappraisal of the North

In the centuries before the twelfth century, ethnic difference in Western Europe was expressed mostly in cultural and linguistic terms. From the end of the eleventh century, however, a stream of translations from Arabic into Latin flowed into the West, among which many textbooks on Arab-Greek medicine.¹ These contained elaborate discussions of man's humoural complexion and, in some cases, the influence of environment and climate thereupon – a theory lingering in the background in the Latin West in the early Middle Ages. According to this medical theory, on the north-south axis, the climate, winds, precipitation and terrain were said to produce men of varying physical build and mental disposition. In the north lived the courageous, rash, hot-blooded; in the south the weak, cowardly, cunning. In the middle, the ideal, most temperate, balanced sanguine man.²

From the early years of the twelfth century, men of letters in Western Europe, especially first in England and afterwards members of the mendicant orders on the Continent, were quick to absorb this newly accessible theory. Remarks about the ethnic character of north-western Europeans, Saracens in the East and the Africans in the South might thus be explained in humoural terms.³ However, for the learned men of North-West Europe, there was something troubling about this classical theory of environmental influence. For this theory was constructed in ancient Greece, at that time the core of culture and power, where the ideal temperate mean was accordingly to be found along the Mediterranean shores. As a consequence, the Christian inhabitants of North-West Europe – from the southern perspective a cold, northerly region – were, according to this ancient theory, on the whole considered as rash, uncivilized, and intellectually deficient, whereas those in the south and east (now inhabited by Saracens) as exceptionally intelligent. For the new self-perceived 'core of civilization' in the North, this presented a worrying perspective.

1 Peter Biller, 'Proto-racial thought in medieval science', in Eliav-Feldon, Isaac and Ziegler, *Origins of Racism*, 157-180, here at 159

2 For climate theory see especially Eliav-Feldon, Isaac and Ziegler, *Origins of Racism*; and Isaac, *Invention of Racism*. Also still useful are Marian J. Tooley, 'Bodin and the Medieval Theory of Climate', in *Speculum* 28 (1953), 64-83 and Glacken, *Traces on the Rhodian Shore*.

3 Although beyond the scope of this subject, it must be noted that this theory was also applied to heretics and Jews. See also Peter Biller, 'A "scientific" view of Jews from Paris around 1300', in *Gli Ebrei el le scienze, Micrologus* 9 (2001), 137-168.

In this chapter, I will discuss how the theory of climate influenced ideas about ethnic character in North-West Europe in this period. I will look first at the basic concepts of the theory in antiquity and the supposed relationship between environment and character. Then I will examine how North-West Europe was positioned on this north-south/east axis (the environment of the south and east were sometimes conflated, as were the regions of Ethiopia, Libya and India). I will distinguish between two concepts: first the ancient Greek tripartite division of the inhabited world into a frigid, temperate and torrid zone; and secondly the theory of the four humoural complexions.⁴ In some texts about these zones and humours, notably Albertus Magnus' *On the Nature of Places* and Bartholomaeus Anglicus' *On the Properties of Things*, explicit remarks are made about the ethnic character and physical appearance of peoples. I will discuss these remarks in relation to the categories of skin colour (dark- and light-skinned); physical build (tall and strong versus small and weak), and mental disposition (rash, courageous, and stupid versus intelligent, fickle and cunning). Finally, I will discuss how these intellectuals grappled with the traditional, rather negative image of North-West Europe and its ethnic groups in relation to the ideal humoural disposition on the north-south axis. Indeed, as we shall see, there were two solutions to this problem. First, a denunciation of the degree of the intelligence of those living in the warm south and east, which was now interpreted within the religious framework of heresy and deception, and a reappraisal of the courage, strength and longevity of the northerners, especially of the northern French and Germanic peoples.⁵ A second solution to transpose the ideal characteristics onto the Christian inhabitants of the core of North-West Europe, was a bit of climatic engineering, of theoretical global warming. As I will discuss, Bartholomaeus thus presented the German territories as rather more salubrious and less cold in his *On the Properties of Things* than in more traditional sources such as Isidore's *Etymologies*, and Paris as the temperate city whose air soothed philosophical minds. As a result, an ideal natural environment was created equipped to foster a civilized Christian population.

In the twelfth century, the ancient climate theory was infused with religious concerns; the 'instability of faith' in the East might thus be explained as a product of climate, and the Carolingian concept of the translation of knowledge to the West was embedded in favourable environmental conditions. At the same time, however, there was a tension between the material concept of complexion (and generation) and the spiritual-religious concept of the soul.⁶ The question to what extent these mental and physical ethnic characteristics were viewed as mutable or fixed, a product of nature, culture, or divine appointment falls beyond the scope of this chapter and will be discussed in chapter 3. In this chapter, the focus of attention lies on the learned theory of environmental influence in North-West Europe on the north-south axis of identity. How did this theory re-enter the Latin

4 Maaïke van der Lugt, 'La peau noire dans le science médiévale', in *Micrologus* 13 (2005), 439-475 makes this distinction between the tripartite zones and the four humours in medicine.

5 This, as we shall see in chapter 7, also became a bone of contention amongst the French and German nobility in this period, as these characteristics partly coincided with notions of the ideal knight.

6 Joseph Ziegler, 'Physiognomy, science, and proto-racism 1200-1500', in Eliav-Feldon, Isaac and Ziegler (eds), *Origins of Racism*, 181-199, here at 189-190.

West at the end of the eleventh century, and how did the scholars of the North pick up on it? As we shall see, soon these notions were influencing monks such as William of Malmesbury and Guibert of Nogent, clerics such as Gerald of Wales, and from the early thirteenth century, mendicant friars such as Bartholomaeus Anglicus and Albertus Magnus.

The reintroduction of climate theory

Throughout the early Middle Ages, the idea that climate influenced ethnic character, although not completely absent, did not play a substantial role in notions of ethnicity. In the Latin West, it survived the early Middle Ages by the skin of its teeth. By way of Latin authors such as natural philosopher Pliny, scholar of architecture Vitruvius, military theorist Vegetius and fourth-century grammarian Servius, the theory lingered on in the writings of Tertullian, Jerome, and especially Isidore of Seville. The most outspoken application of ancient climate theory in Bartholomaeus' *On the Properties of Things* is thus the repetition of the chain of stereotypes dished up by Isidore, though originally stemming from Servius' late fourth-century commentary on Virgil's *Aeneid*. Discussing the milky-skinned Gauls, Bartholomaeus explains: 'For, in accordance with the diversity of heaven, there exists diversity in the faces and colouring of men and their temperaments, and the size of their bodies. Thus Rome brings forth serious men, Greece light-hearted, Africa cunning and Gaul naturally fierce and sharp-witted men.'⁷

However, it was not until the end of the eleventh century that we find climate theory increasingly applied in Latin writings. As Peter Biller has remarked, this new application of climate theory was related to the influx of knowledge from the Arab world. This was a result of the production of medical, geographical and astrological treatises translated from Arabic into Latin, first at Monte Cassino and Salerno, and from the second half of the twelfth century in Spain.⁸ At the end of the twelfth century, a new translation thus appeared of Hippocrates' Greek *Air, Waters, Places* from the

7 Bartholomaeus Anglicus, 'De Gallia': 'Secundum enim diversitatem coeli et facies hominum et colores animorum diversitates existunt et corporum qualitates. Inde Roma graves generat, Graecia leves, Affrica versipelles, Gallia natura feroces ingenioque acres.' Cf. Isidore, *Etymologiae* IX 2, 105. Servius writes that the Gauls are of 'pigroris ingenii' – slow of comprehension, which Isidore has changed into fierce and sharp-witted. Cf. Servius, *Servii Grammatici Vergilii Carmina Commentarii, Vol. II, Aeneidos Librorum VI-XII* vi 724, ed. G. Thilo: 'In sano enim corpore alia est vivacitas mentis, in aegro pigror, in satis invalido etiam ratione carens, ut in phreneticis cernimus: adeo cum ad corpus venerit, non natura sua utitur, sed ex eius qualitate mutatur. inde Afros versipelles, Graecos leves, Gallos pigroris videmus ingenii: quod natura climatum facit, sicut Ptolomaeus deprehendit, qui dicit translatum ad aliud clima hominem naturam ex parte mutare; de toto enim non potest, quia in principio accepit sortem corporis sui.' The remark about the Romans is also Isidore's. See Isidore Hispalensis, *Etymologiae* IX, ed. Reydellet, 102-103, n. 142. In the later lists discussed in chapter 4, the Franks are repeatedly called ferocious. The Gauls, conversely, are full of *gula* or commercial behaviour. In some lists, the Romans are also called serious.

8 Peter Biller, 'Proto-racial thought in medieval science', in Eliav-Feldon, Isaac and Ziegler, *Origins of Racism*, 157-180, here at 159.

Arabic.⁹ Especially relevant were the translations of medical theory such as the *Liber pantegni* ('Encompassing all arts'), of which more than a hundred manuscripts are extant, and Avicenna's *Canon*.¹⁰ Constantine the African's (circa 1020-1087) *Liber pantegni*, an adaption of the *Kitab al-Malaki* (The Royal Book of All Medicine) by tenth-century Ali ibn al-Abbas al-Majusi (or Haly Abbas) contains elaborate discussions of humoral theory, which explained in medical terms how climate influenced physical appearance and character. Furthermore, in the twelfth century, Galen's *On Complexions* was translated into Latin by Burgundio of Pisa; before 1220, Aristotle's *On Animals* had been put on the curriculum of the Arts Faculty at Paris, and between 1258 and 1266 the Pseudo-Aristotelian *Problems* appeared.¹¹

How widespread was the knowledge of climate theory in the twelfth century? We can assume that at least among the intellectual elite, the notion that environment influenced character was steadily gaining ground. Peter Biller has remarked that we can discern two academic circles where the body of knowledge of climate theory was diffused: among clerics educated at the universities and among mendicant friars.¹² Many of the abovementioned texts appeared on the reading lists of arts faculties in Paris, Salerno or Bologna. In the twelfth century, some of the most extensive discussions of climate, geography and character can thus be found in works such as Paris student Gerald of Wales' *Topography of Ireland* and *On the Instruction of Princes*. Scientific texts also entered the curriculum of students in Germany attending the *studia generalia* through the teachings of Dominican and Franciscan mendicants (Albert Magnus wrote, among others, *On the Nature of Places* and taught in Cologne, Bartholomaeus Anglicus' *On the Properties of Things* was written and lectured on in Saxony). From the fourteenth century, texts appear arranged in academic *quodlibetic* questions and answers on men living in hot and cold regions, citing the Pseudo-Aristotelian *Problems*. However, even before the expansion of knowledge of climate theory at arts faculties, we already find clear evidence of the influence of climate theory in early twelfth-century texts by Guibert of Nogent (*Deeds of God through the Franks*) and William of Malmesbury (*Deeds of the English Kings*). These were monks who had received a high standard of education, although not at a university art faculty. Both included climate-related discussions on a lack of bravery of Saracens and other 'heretics' during the First Crusade.

Besides direct textual transmission among intellectuals, Peter Biller also draws to our attention the fact that we cannot underestimate the spread of these ideas by mendicant friars – there were more than 40,000 friars by the early fourteenth century – in their preaching to lay peoples in later medieval

9 In which the long-headed Scythians had been transformed into Turks. Idem, 160-162. An earlier, probably sixth-century translation made in Ravenna, was seemingly uninfluential and little read. Of the twelfth-century translation about twenty manuscripts are extant, pointing to wide currency.

10 Idem, 163-164. Avicenna's *Canon* became a standard textbook in Bologna at the end of the thirteenth century. According to Biller, however, there is only evidence that students were compelled to master the passage on climate as late as 1405. There is evidence that it was also studied at Montpellier in the late thirteenth century.

11 Idem, 165-167.

12 Idem, 167-170.

towns and cities. He has raised the very important question to which extent these ideas were circulating beyond academic circles, perhaps in the minds of people without a 'scientific' basis.¹³ This is extremely difficult to address, as we are dependent mostly on the writings of educated clerics and monks. On the other hand, to assume that for example colour prejudice (regardless of whether it was based upon some kind of theory) did not exist among the illiterate just because the sources are silent, is equally invalid. Manuscript images and church sculptures of Saracens or Jews do offer us a glimpse of possibly widespread prejudiced representations of the religious other as dark, monstrous, or large-nosed;¹⁴ in some instances identical verbal representations were mixed up with discussions of climate theory. Unfortunately, however, visual representations of Christian European peoples are virtually non-existent in this period.¹⁵ In addition, colour prejudice need not be based upon knowledge of climate theory. Nonetheless, before discussing what climate theory entailed, it is important to emphasize that such notions of environmental influence were probably alive at least in the minds not only of the highly educated but also of illiterate aristocratic audiences. In the middle of the twelfth century, Benoît of St Maure wrote the vernacular verse *Chronicles* about the history of Norman dukes for precisely such an audience.¹⁶ In it, he states that the world's fringes are uninhabitable due to the extreme coldness. Europe, at the centre of the world, is however pleasant and temperate; summer and winter are in balance, the region is 'right and handsome and delightful and bounteous and abundant in all that a man needs'. As a region of temperance, the men of Europe are also of the ideal type: 'The men there are of handsome form and of wise manners, discreet, reasonable, and well dressed. They are neither too tall nor too short. There they use courteous manners and have arts, laws and justice.' This is related to Christendom: 'There they believe in one god, the creator.' Conversely, in the south, all this is lacking; the men there do not know the difference between right and wrong, have no laws, religion or reason, are worse than dogs, are black, chinless, horned and hairy.¹⁷ In this vernacular text we see typical elements of climate theory: the

13 Idem, 176-177. I would also like to point to the large number of vernacular translations and editions of Bartholomaeus' encyclopedia in the fifteenth century. See chapter 1 note 4. Biller suggests to look for remarks about the Other in a non-religious context. I however believe that it is difficult to draw such a distinction, as ideas about ethnicity and religion were tightly interwoven in this period. The very fact that remarks are being made about 'Jewish faces' or Muslim 'monstrous beings' in for example *chansons de geste* of this period, points to the interrelation between religion and ethnicity. Also, we may surmise that lay people had at least a rudimentary knowledge of humoral theory as the basis of medicine and dietary precepts.

14 See Sarah Lipton, *Images of Intolerance: The Representation of Jews and Judaism in the Bible moralisée* (Berkeley 1999).

15 I refer to the image of the tailed Englishman in sculpture, but their tales are not related to climate theory. See chapter 6 for references.

16 Friedman, *Monstrous Races*, 53-55.

17 Benoît of St Maure, *Chronique des ducs de Normandie* I 11 185-203; 131-132; 136-140; 141-143, ed. Fahlin, vol. 1, 5-7: 'En sunt li grant renne abitabile / E riche e bel e delitable / E plantaïf e abondos / De quanque hue nest desiros. / De bele forme I sunt les genz / E de saiges contenemenz, / Discret, raisnable e bien vestu; / Trop grant ne sunt ne trop menu. / Cist sevent les afaitemenz, / Les ars, les leis, les jugemenz, / Cist sevent connoistre e veoir / E entendre e aperceveir / Qu'eu n'est cún Dex, c'un criator'; translation by Friedman, *Monstrous Races*, 54.

temperance of the ideal mean, its influence on character and morals, and, in the Middle Ages, its relation to Christendom. Benoît mentions all these elements in his Old French chronicle as if they are matter of fact. Presumably, Benoît believed that the aristocrats of Normandy understood why the temperance of Europe produced excellent men.

Ancient climate theory: frigid, temperate and torrid zones

The cradle of the theory of climate, according to which the inhabitants of the world are differentiated as a result of atmospheric and environmental conditions, stands in Greek antiquity. The basic ingredients of the theory of environment consist of the notion that climate and geography determine man's physical appearance and character, although the latter might also be influenced by law and culture. This environmental notion was persistent in both Greek and Roman ancient thought, and subsequently surfaced in writings on philosophy, medicine, geography, architecture, rhetoric, history and military theory by among others Plato, Aristotle, Galen, Vitruvius, Seneca, and Vegetius.¹⁸ One of the oldest texts to come down to us containing the theory is the late fifth-century BC *Airs, Waters, Places*, ascribed to Hippocrates, who opposed the cold, fierce North, inhabited by the Scythians, with the weaker South, Egypt and Libya (the latter part is unfortunately missing).¹⁹ In the middle lies Asia, where everything 'is far more beautiful and grows to far greater size; the region is more cultured than the other, the character of the inhabitants is more tractable and gentle.'²⁰ However, the Asians, although finely built, are lacking in courage, tenacity and will-power; they are soft and the region is one of pleasure. This Hippocrates relates to their political institutions and their subjugation by kings, as they are unfree. The Europeans, conversely, are subject to harsher conditions and are therefore more belligerent, courageous, and free.²¹ Hippocrates' contrast between soft and hard environments, related to the influence of climate, altitude, moisture, dryness, and seasonal change was to be of lasting importance.

18 Glacken, *Traces on the Rhodian Shore*, 80-115 and Isaac, *Invention of Racism*, 55-168.

19 Isaac, *Invention of Racism*, 60-69.

20 Idem, 62.

21 Idem, 63-65. Hippocrates also states topographical influences: 'Those who live in a region which is mountainous, rough, high and well-watered, where the changes of the seasons show marked differences, are likely to be tall, well suited for endurance and courage, and such natures are likely to possess quite a lot of wildness and ferocity. Those who inhabit low-lying regions, that are grassy, marshy, and have more hot than cool winds, and where there is hot water, these will be neither tall nor well-shaped, but tend to be stocky, fleshy and dark-haired; they themselves are dark rather than blonde, more susceptible to phlegm than to bile. Similarly, courage and endurance are not by nature part of their character, but the imposition of law may produce them artificially.' Cf. *De aere, aquis et locis* 23, 1. Translation by Isaac, *Invention of Racism*, 65.

Hippocrates' dichotomy between Asia and Europe was along the east-west axis; indeed he stated that the Orient was more temperate due to its proximity to the sun.²² At the end of the twelfth century, a new translation of *Airs, Waters, Places* appeared in the Latin Europe, possibly influencing discussions of the east-west dichotomy such as to be found in Gerald of Wales' *Topography of Ireland* or Bartholomaeus' *On the Properties of Things*.²³ However, Hippocrates also drew a comparison between peoples on the north-south axis. And, as Benjamin Isaac remarks, although this text is unfortunately lost to us, from the Roman period onwards the north-south axis 'eclipsed the contrast between Europe and Asia'.²⁴ It was not until the twelfth century that the two concepts clearly merged again. It is to this north-south categorization that we will now turn.



Zonal map. The northern temperate zone is cut off from the southern temperate zone (*temperata anteeorum*) by an insurpassable ocean and torrid zone. Troyes Bibliothèque Municipale MS 804 f. 233v. in Macrobius' *Dream of Scipio*, eleventh century.

Divisions of the earth

In ancient and medieval thought, the constituents of place which influenced appearance, character and behaviour were arranged according to various principles of arrangement on the north-south axis.²⁵ An ancient theory, attributed to Parmenides, had already posited that the spherical earth was subdivided in five latitudinal zones, of which only two were thought to be habitable. In medieval times, images of such zonal divisions can be found in numerous so-called Macrobian maps.²⁶ The extreme cold of the frigid zones around the poles (the *septentrionalis*, our northern polar zone and the *australis*, our southern polar zone) and the blistering heat in the equatorial or torrid region between the tropics of Cancer and Capricorn (the *equinoctialis*) were considered regions where life was unsustainable. In between were two mirrored temperate zones: the *solstitialis* (the Tropic of Cancer, our northern temperate zone) and the *brumalis* or *hyemalis* (the Tropic of Capricorn or southern temperate zone).²⁷ Whether or not the *brumalis* in the Southern Hemisphere was actually inhabited, was however subject to debate in the Middle Ages. Sometimes known as the 'Antipodum', the temperate zone in the Southern Hemisphere was designated as the home of the

22 Isaac, *Invention of Racism*, 62.

23 Biller, 'Proto-racial thought', 161.

24 Idem, 67.

25 Ziegler, 'Physiognomy, science', 185.

26 Edson, *Mapping Time and Space*, 6-7.

27 Wright, *Geographical Lore*, 157.

Antipodes, people whose feet pointed in the opposite direction and who were completely cut off from the north by a vast equatorial ocean.²⁸

In discussions about climate, divisions between cold, temperate and hot zones were usually restricted to the northern, habitable hemisphere, which was hedged in between a frigid and a torrid zone. To complicate matters, in the early half of the first century BC, the Greek philosopher and astronomer Poseidonius had further divided the earth's *habitable* surface into seven *climata*, strips running from east to west along latitudinal lines and set apart by thirty-minute differences in duration on the longest day, from the Dnieper in the north (50°N) to the Meroë in the south (12°N), in present-day Sudan. Visual representations of this sevenfold division remained scarce before the twelfth century and were restricted in earlier periods to Arab map making.²⁹ On either side of these habitable limits savage peoples purportedly dwelled, inhabiting the *ante-climata* and *ultra-climata*. According to the classical theory, the fourth and fifth zones were considered the most temperate.³⁰ These zones corresponded roughly to the region of the Mediterranean Sea. In addition, in the second century AD Ptolemy also developed a strand of environmental theory relating man's physical and mental constitution to astrological influences. According to his astrological ethnology the revolving spheres of the seven planets and the stars imparted their 'virtues' by discharging their rays. In the later Middle Ages, astrological influences purportedly influenced Jewish physical constitutions, resulting in stereotypes about the Jewish melancholy complexion.³¹

Ideal temperate climate

Even in classical antiquity, intellectuals tampered with the positioning of the ideal climatic zone was tampered with. Just as twelfth-century Benoît later stated that Europe was the most ideal temperate region, in ancient thought there was an ethnocentric tendency to situate the ideal temperate climate in the core region of power and culture – whether speaking broadly of the temperate zone, or more specifically of the fourth or fifth climate. Over the centuries, we accordingly see slight shifts in the

28 Additionally, the Antipodeans were sometimes located in a fourth austral continent lying south of the equator, as depicted on so-called Beatus maps in the commentary on the Apocalypse by eighth-century Benedictine Beatus of Liébana. For a full discussion of the Antipodal races, see Friedman, *Monstrous Races*, 37-58.

29 Edson, *Mapping Time and Space*, 7.

30 Van der Lugt, 'La peau noire', 448.

31 For the planetary influence of Saturn on the melancholy complexion, and generally for astrology and humoral theory, see Raymond Klibansky, Erwin Panofsky and Fritz Saxl, *Saturn and Melancholy: Studies in the History of Natural Philosophy, Religion and Art* (repr. London 1964); Tooley, 'Bodin and the Mediaeval Theory of Climate', 66-69; Biller, "'Scientific" view of Jews'. Each point on earth was subject to the rays imparted by that part of heaven within its horizon, the intensity of the rays depending on the angle of incidence at which they fell on the earth's inhabitants. As the heavens revolved, so the earth's inhabitants were subject to a constantly changing influence of the stars. The planets and signs were also linked to the earth's regions. Since the days of Ptolemy, the twelve signs were lumped together in four triplicities. Each of these was tied up with the four quarters of the inhabitable world, represented by the four cardinal points on the compass. Moreover, each triplicity was coupled to one of the four elements and the planets. There was, however, disagreement over the attribution of the triplicities to the four quarters.

designated coordinates of the temperate region. Just as Greece had been the temperate middle in Greek times, thus in Roman times, Pliny emphatically placed Campania in Italy in the temperate middle. Here, nature had excelled, in a joyous mood, rendering ‘all that invigorating healthfulness all the year round, the climate so temperate, the plains so fertile, the hills so sunny, the glades so secure, the groves so shady!’³² Such were the benefits of the forests, the fertile fields, bearing corn, vines, olives, such its healthy livestock, numerous ports facilitating commerce, and such the character and customs of its inhabitants. Furthermore, according to Pliny, to the south lived the Ethiopians, scorched by the sun’s heat and with frizzled hair, while, in the opposite and frozen parts of the earth, there were nations with white skins and long blond hair. The latter ‘are fierce owing to the rigidity of their climate but the former [Ethiopians] wise because of the mobility of theirs’.³³ In the middle, and similar to Benoît’s representation, ‘owing to a healthy blending of both elements, there are tracts that are fertile for all sorts of produce, and men are of medium bodily stature, with a marked blending even in the matter of complexion; customs are gentle, senses clear, intellects fertile and able to grasp the whole of nature’.³⁴ As in Hippocratic thought – and a precursor to medieval accusations of lawlessness among the Irish – Pliny also makes a connection with political institutions, as those in the ideal middle ‘also have governments, which the outer races never have possessed, any more than they have ever been subject to the central races, being quite detached and solitary on account of the savagery of the nature that broods over those regions’.³⁵ In summary, this tripartite scheme placed an ideal society in the temperate middle; to the south and north lived untrustworthy beings and ‘savages’ as a result of their climates, which were too hot or too cold.

In ancient times, the ideal middle was located in Greece and Rome respectively. In the twelfth century, this sparked some subtle climatic engineering. Before examining twelfth-century attempts at theoretically organizing global warming, I will however first discuss the underlying medical humoral theory of the complexions, which explains how environment determined mental and physical characteristics. Indeed, climate theory is so intrinsically tied up with humoral theory that it is almost impossible to view them separately. Given that temperature and humidity were considered fundamental qualities influencing the bodily complexion, situation and climate were important variables influencing complexions. It is clear that theories of the influence of climate, topography and the stellar constellation thus provided the ‘scientific’ backbone for ethnic stereotypes.³⁶

32 Pliny the Elder, *Historia naturalis* III 5 40-42, transl. Rackham, 32-33: ‘tota ea vitalis ac perennis salubritas, talis caeli temperies, tam fertiles campi, tam aprici colles, tam innoxii saltus, tam opaca nemora’. Quotations from classical literature in this book are from Oxford Classical Texts or from Teubner editions. Translations are from Loeb editions.

33 Idem, II 80, 189, transl. Rackham, 320-321: ‘trucis vero ex caeli rigore has, illas mobilitate sapientes’.

34 Idem, II, 80, 190, transl. Rackham, 320-323: ‘medio vero terrae salubri utrimque mixtura fertiles ad omnia tractus, medicos corporum habitus magna et in colore temperie, ritus molles, sensus liquidos, ingenia fecunda totiusque naturae capacis’.

35 Idem, II, 80, 190, Rackham, 322-323: ‘isdem imperia, quae numquam extimis gentibus fuerint, sicut in illae quidem his paruerint avolsae ac pro immanitate naturae urgentis illas solitariae’.

36 Goldenberg, ‘Racism, color symbolism’, 91.

Humoural theory

What does the theory of humours entail? Whereas the classical tradition generally arranged peoples according to a tripartite scheme of frigid, temperate and torrid regions, the medical theory of the complexions was based upon the fourfold scheme of the phlegmatic, sanguine, choleric and melancholic. It is unclear how the doctrine of humours first evolved. Ideas that environment, altitude, winds and waters affected man's physical and mental constitution were, as we have seen, certainly circulating among ancient Greek philosophers such as Hippocrates and Aristotle. The first to formalize the theory of the humours, however, was Galen in the second century AD. Especially in *On the Temperaments* and *The Faculties of the Soul* (written sometime after 193 AD), Galen expounded how Aristotle's elements and qualities together determined the four bodily humours. According to Aristotle's teaching, the four elements (air, fire, water and earth) are qualified by *primae qualitates*. The latter must satisfy three criteria: (1) they must be tangible (*ἅπτικός* *haptikos*, 'sensitive to touch'), (2) they must be capable to enact qualitative change and (3) must be opposites in pairs. Of the seven opposite pairs which Aristotle recognized, only two pairs satisfied the second condition, namely hot/cold and moist/dry, because a body which is for example hot can transfer these qualities to another body, but a body which is hard (also a *prima qualitas*) cannot make another body hard. Thus the elements of the physical world are characterized by four possible combinations: air – hot and moist; fire – hot and dry; water – cold and moist; earth – hot and moist. These four combinations, depending on their mixing and separation, determine matter in the physical world. Each of the four combinations has its counterpart in the human body, and each matches a bodily humour.³⁷ The diagram below offers an overview of the elements, qualities, humours and their corresponding attributes.³⁸

ELEMENT	QUALITY	HUMOUR	SEASON	TRIPLICITIES
Air	hot and moist	blood (sanguine)	Spring	Jupiter, Gemini, Taurus, Aries morning, red, sweet, continuous fever, heart
Fire	hot and dry	yellow bile (choleric)	Summer	Mars, Virgo, Leo, Cancer midday, yellow, bitter, tertiary fever, spleen
Water	cold and moist	phlegm (phlegmatic)	Winter	Moon, Pisces, Aquarius, Capricorn evening, white, salty, quotidian fever, brain
Earth	cold and dry	Black bile (melancholy)	Autumn	Saturn, Scorpio, Sagittarius, Libra afternoon, black, sour, quartan fever, liver

³⁷ Noga Arikha, *Passions and Tempers: A History of the Humours* (New York 2007), 5; see also Dijksterhuis, *Mechanisering van het Wereldbeeld*, 23-24.

³⁸ I have used Arikha's diagram in *Passions and Tempers*, 11 as a point of departure.

Disease was thought to set in when these qualities, such as hot and cold, dry and moist were imbalanced.³⁹ However, the bodily humours not only brought about health or disease. They were also thought to work upon man's physical appearance and mental state, as according to ancient medical theory the balance between the bodily humours also determined somebody's complexion, which determined his character.⁴⁰ Especially in the Latin tradition, starting with Isidore and Bede, this notion spawned 'humoural types'.⁴¹ As Roger Bacon (c. 1214-c.1294) thus stated, radical complexions determined men's dispositions in regards to morals, learning and languages, crafts and workmanship.⁴²

How then did complexions influence mental characteristics according to humoural theory? Underlying belief was that the soul's faculties, located according to Galen in the brain (whereas Aristotle located these in the heart), were fed by the bodily humours. The passions issuing from the humours were actions of the body. In Galen's theory, the humours traversed from the liver to the heart via the veins, and from heart to brain via the arteries, carried along by the 'spirits' (*pneumata*, particles transported in the blood of the *pneuma*, the 'breath' or 'vital principle', for Aristotle the instrument of the heart-based soul).⁴³ The spirits, along the way, were metamorphosed from natural *pneumata* (in the liver) via vital *pneumata* (in the heart) to 'animal' or 'psychic' *pneumata*.⁴⁴ These bodily spirits were viewed as the primary constituents of the soul.⁴⁵ The worldly sensitive soul (separate from the higher, rational soul) was, according to Plato, made up of two parts: in the heart was the vital soul, which was subject to the emotions of hope and anger; the liver housed the vegetative soul (which might seek good, and was subject to desire and aversion). In the brain the sense perceptions were located separate from will and reason.⁴⁶

All this activity was the result of 'appetite', leading to the transmission of sense perceptions. Indeed, all knowledge was viewed to come from the organs of sense, and the more acute the sensory impressions, the more intense the thought process. If, however, sense impressions, which were transported to the brain by the 'spirits', were impeded by hot (thick) blood (in a cold climate), the senses were dulled. At the same time, the hot-blooded man, in a cold climate, retained large quantities of blood and therefore remained fearless. Hence the thick, hot-blooded man was, in Marian Tooley's words, 'confident and assertive, impatient, magnanimous, greedy of honour and power, and a great fighter' – the makings of a bold knight –, whereas the southerner was timid, puny

39 Glacken, *Traces on the Rhodian Shore*, 10-12.

40 Idem, 8.

41 Klibansky, Panofsky, and Saxl, *Saturn and Melancholy*, 102.

42 Roger Bacon, *Opus Maius*, ed. Bridges, vol. 2, 138. Citation drawn from Tooley, 'Bodin and the Mediaeval Theory of Climate', 74.

43 Arikha, *Passions and Tempers*, 23. According to Galen, this *pneuma* was actually produced by the humours.

44 Idem, 38-39.

45 Ziegler, 'Physiognomy, science', 189.

46 Arikha, *Passions and Tempers*, 37-39. The higher rational soul was located in the brain's ventricles. The two anterior ventricles were thought to house sense perception and imagination; the middle reason, and the posterior memory.

and vengeful. The thinner the blood, however, the finer the sense impressions, and thus, the greater the intelligence.⁴⁷ As we shall see, from the twelfth century this was adopted by clerics in North-West Europe as an explanation why the southerners were purportedly adept at the sciences and the occult.

It must be noted that according to most texts containing the theory of climate, heat and coldness brought about an opposite effect: cold climates produced men with hot (sanguine) temperaments, whereas hot climates resulted in a cold melancholic humour. The latter was based upon the belief that external heat drew the moisture and ‘spirits’ from the body, thus lowering inner temperature and vitality. Indeed, according to Albertus Magnus, the lifespan of those in the south was shorter because of a lack of natural *virtus* in hot regions.⁴⁸ Conversely, external cold maintained internal heat and moisture by closing the pores of the skin and blocking off evaporation. In his translation known as the *Liber pantegni*, part of the standard curriculum for medical students in Salerno, Constantine the African states this very clearly, saying that those living in the temperate region (who could be singled out by their hair colour) were honest. Conversely, in the intemperate region, dark men ‘with curly and thick hair, dry skin, small, thin bodies, round faces, concave eyes, and large noses’ were often deceitful, ‘and indeed they are cold within and thus rendered very timid. Although they appear from this sign to be hot, they are not. For the intense heat extracts from the interior to the exterior their natural heat and thus they are cold within.’ In the northern cold region, under the great or small pole, people ‘have blond, soft hair, and are white, with a red and white face, broad bodied and quick footed because of the built-up heat in their breast. Their complexion is hot and thus they are audacious and strong, and hot, although they seem cold. Thus you can tell someone’s humour not from hair and colour but from complexion.’⁴⁹

However, according to humoural theory, this did not apply to extremely cold regions, such as the ultimate North. There, the pores closed as a result of the extreme cold; in the body too much moisture consequently heaped up (as in the phlegmatic), clogging the brain with the snotty substance of phlegm and lowering the body temperature.⁵⁰

To summarize: in the south, in warm regions, lived intelligent though fickle, timid peoples as a result of evaporation of thick blood (or *virtus*?) due to the sun’s heat. In the colder regions, men were

47 Tooley, ‘Bodin and the Mediaeval Theory of Climate’, 74-75; Van der Lugt, ‘La peau noire’, 453-454.

48 Ziegler, ‘Physiognomy, science’, 173.

49 Constantinus Africanus, *Liber Pantegni* I 20: ‘pili crispī et asperi, sicca cutis, inferior pars corporis subtilis: facies tumida, oculi concavi, nasi magni atque interiora frigida et ideo inanimositas eos debilitat. (...) pili sunt flavī lenes et albi color albus facies rubicunda pectora lata pedes subtiles propter adunationes caloris in pectore fugientis a perditum extremitate. Eorum complexio est calido et ob hoc fiunt audaces atque fortes et tamen cum non sint: videntur esse frigidi. Ergo in humori non est certitudo a colore et pilis sed ex complexione sui.’

50 Tooley, ‘Bodin and the Mediaeval Theory of Climate’, 72. See also for example the Pseudo-Aristotelian *Problemata* XIV 16, transl. by E.S. Forster, in Jonathan Barnes (ed.), *The Complete Works of Aristotle* (Princeton 1984), vol. 2, where the question is raised whether ‘human beings have a natural tendency which counteracts the effect of locality and season (for, if both had the same tendency, they would soon be destroyed).’

more dapper because of the internal heat in their bodies. According to humoral theory, men in a cold dry environment were internally hot and moist, and this was viewed as the ideal temperament. In the far North however, lived the phlegmatic, due to the extreme cold.

Applying climate theory in the twelfth century

Now that we have discussed briefly how humours were viewed to influence a person's appearance and mental state, we must examine in more detail how these notions were applied from the twelfth century onwards. Jumping to the sixteenth century, French legal thinker and political philosopher Jean Bodin undertook to examine how the arrangement of a Republic should be tailored to the characteristics of its inhabitants. Applying the humoral theory to the European nations, he concluded in *Six Books of the Commonwealth* that the Scandinavians were phlegmatic, the Germans sanguine, the Frenchmen choleric and the Spaniards melancholic.⁵¹ There is no evidence that in the twelfth or thirteenth century ethnic humoral reasoning was as precise. Whether or not those living in France, for example were viewed as sanguine – viewed as the ideal complexion as these men retained their inner heat –, choleric, or melancholy is not discussed expressly in this period. Nonetheless, this period did lay the first foundations for a more defined attribution of specific humours to peoples; for instance, from the sources traces can be gleaned that Bartholomaeus Anglicus believed the Slavs to be phlegmatic, and that Albertus Magnus considered Germans to be 'thick'. Indeed on closer examination, Bartholomaeus seems to apply the theory of climate in many of his descriptions of the character and physical appearance of northerly peoples, although without explicitly mentioning the humours in these paragraphs. This will be discussed further below.

Can we possibly relate these early examples of the application of humoral theory to an increasing sense of identity in the new core of North-West Europe, in a desire to distinguish more clearly between the inhabitants in this region, in relation to their relative position on the north-south axis, in colder or hotter climates? This is a relevant question as cold regions were, according to Aristotle's *Politics*, inhabited by peoples 'full of spirit, but deficient in skill and intelligence'.⁵² In Bartholomaeus' day, the relevant issue was, however, *how* cold. For cold and dry were essentially beneficial qualities, generating a sanguine temperament of boldness, intelligence and merriment. Only cold and wet – too much frigidity – created a phlegmatic constitution – entailing stupidity and tardiness. Within the cold North, the distinction was thus a subtle one. Moreover, in more general terms, whereas the North was lumped together in antiquity, the desire grew for a more detailed and nuanced differentiation of the peoples living in this region. It is therefore useful to look in greater detail at representations of the North in Bartholomaeus Anglicus' and Albertus Magnus' work, as

51 Jean Bodin, *Six Livres de la République* v 1 (Paris 1608), 677. Cf. Tooley, 'Bodin and the Mediaeval Theory of Climate', 72-73. His reasoning departed from the premise that the north fell in the frigid zone, the south in the torrid, and that east and west were both temperate. The west, however, was more aligned to the north due to its moistness. Due to its cold climate, Bodin opted to elect the north-west corner of the earth as the most favoured by nature.

52 Aristotle, *Politics*, 1327b, transl. in Isaac, *Origins of Racism*, 70-71.

both had knowledge of humoral and climate theory and lived in the North. Indeed, in comparison to other encyclopaedic compilers Bartholomaeus Anglicus' *On the Properties of Things* offers not only the most elaborate discussion of ethnic groups in our period but also of the humours: encyclopaedists such as Thomas of Cantimpré barely touched upon the matter.⁵³ According to R. James Long, Bartholomaeus' book on the body is in fact 'among the most successful of the nineteen books of Bartholomaeus' encyclopaedia and quite possibly the most utilized conduit for the layman of the accumulated medical lore of the Greeks and Arabs'.⁵⁴ Testimony to the significance of the four elements in *On the Properties of Things* – as in many medieval encyclopaedias – is borne by the composition, the four elements forming the backbone of Bartholomaeus' entire description of the natural world, both organic and inorganic.⁵⁵ As we shall see, in his work humoral theory is already creeping up on notions of ethnic character and colour, as he was inclined to present the most northerly people as phlegmatic.

First, however, I will discuss how skin and hair colour fitted into this discussion of the identity of North-West Europe on the north-south axis. This is important especially as the colours black and white functioned within the two systems of explaining skin colour, both caused by the heat of the sun or coldness, and as markers of a melancholic or phlegmatic complexion.

Skin colour and complexion

As we have already seen, in the first century AD, Pliny the Elder had applied the environmental theory to explain the origin of differences in skin colour, relating the proximity of the sun to the skin's hue: the Ethiopians, burnt by the heat of the heavenly body, were born with a scorched appearance and curly hair; in the opposite region of the world the peoples had frosty white skins, and blond, straight hair.⁵⁶ According to Pliny, blackness resulted from the burning sun; whiteness, conversely, was said to result from the cold.⁵⁷ According to thirteenth-century encyclopaedist Vincent of Beauvais, the Gauls were thus white-skinned 'for the mountains and the chilliness of the

53 In book IV, Bartholomaeus deals with the four elements, the primary qualities of hot, cold, moist, and dry, the effects of food and drink, and finally the four humours: blood, phlegm, choler, and black bile. R. James Long, 'Introduction', in: Bartholomaeus Anglicus, *De proprietatibus rerum* vol. 1 (Turnhout 2007), 192.

54 Long, 'Introduction', 191-192.

55 This is discussed in books VIII-XVIII. Descending from the sky, with its planets and stars, the celestial movements, dominated by fire (books VIII-X), Bartholomaeus goes on to discuss the air and its meteorological aspects (XI), and, in addition, those creatures which inhabit it, namely birds (XII). Book XIII is dedicated to water, rivers, sea and various fishes. The following five books, finally, concentrate on the fourth element, earth, describing the earth's mountains, valleys, deserts and caves (XIV), regions (XV), stones and metals (XVI), herbs and plants (XVII) and animals (XVIII). Bartholomaeus grounds his orderly arranged discussion of the humoral theory mainly on Arab Constantine the African's translation of al-Abbas' *Pantegni*, and, to a much lesser extent on Ibn Sina's (Avicenna's) *Canon of Medicine* and a collection of medical texts known as the *Articella*. For Bartholomaeus' use of sources, see R. James Long, 'Introduction', 196-198.

56 Pliny the Elder, *Historia Naturalis* II 80, transl. Rackham, 321.

57 This is also repeated in Albertus Magnus, *De natura loci* II 3.

sky keep the heat from the sun from this region, so that the whiteness of bodies does not darken in colour'.⁵⁸

It is important to remark that black skin colour here is not related to a black complexion; black people in Africa were not viewed as melancholics suffering from an excess of black bile, as the whole schema of humours related to white-skinned persons.⁵⁹ Skin colour was seen as first determined by the heat of the sun, toasting skin and hair. A southerner with an excess of phlegm, would accordingly perhaps turn a lighter shade of black, but still remain dark-skinned. According to the eleventh-century scholar Haly, working in Cairo, an Ethiopian born when Saturn was in the Orient, would thus have pale skin according to Ptolemy, yet he would only be *less* black than other Ethiopians. On the other hand, a dark-skinned person who moved northwards would eventually grow lighter skinned, although this was a very slow process. As we shall see in chapter 3, this is testimony to the fluidity of the system of environmental and cultural influences, and acquired characteristics.

In general terms, this black-white binary, whether caused by the scorching sun (in Africa) or extreme coldness influencing complexion (in the far North), was from early times transposed onto a geographical model.⁶⁰ Isidore thus postulates the binary that Maures are black as night, Gauls as white as milk; the eleventh-century *Isagoge* attributed to Johannicius contains a very elementary distinction between white and black skin colour (the Scots and the Ethiopians).⁶¹ Albertus Magnus even went so far as to determine that this binary applied to animals and plants, such as rabbits and pepper.⁶² As such, the binary seems to reflect the fundamental Aristotelian idea that the 'world was bred of opposites and therefore contained opposite qualities', contrasting black and white, bitter and sweet, good and bad, great and small.⁶³

In addition, as we have seen in chapter 1, skin colour could be an important marker in etymological explanations of ethnic names. A tenacious explanation stated that Gallia had 'thus been named since antiquity because of the whiteness of its people. For in Greek γάλα means milk, and therefore the Sybille called them Gauls, that is to say white, saying that their milky necks are circled with gold'.⁶⁴ Parroting Isidore, Bartholomaeus explains that 'Ethiopia was originally named after the

58 Vincent of Beauvais, *Speculum Naturale* xxxii 13: 'Montes enim et rigor coeli ab ea parte solis ardorem excludunt, quo sit ut candor corporum non coloretur.' Cited verbatim from Isidore, *Etymologiae* xiv 4, 25. Cf. Hrabanus Maurus, *De rerum naturis* xii 4, ed. Patrologia Latina 111, Col. 0350C.

59 Van der Lugt, 'La peau noire', 452-453. Albertus Magnus says that colour was an external sign of physiology; those in the torrid region, having an abundance of yellow bile (choleric), are naturally agile and dry because of the evaporation of their vital spirits due to the heat, dying at a young age, and less fertile than people in the north. Cf. Albertus Magnus, *De natura locorum* ii 3.

60 Idem, 449-450.

61 Biller, 'Proto-racial thought', 165; Van der Lugt, 'La peau noire', 447.

62 Cited by Van der Lugt, 'La peau noire', 451. Albertus Magnus, *De natura locorum* ii 3 and 4.

63 Arikha, *Passions and Tempers*, 5

64 Bartholomaeus Anglicus, *De proprietatibus rerum* xv 66, 'De Gallia': 'Quae etiam a candore populi sic est antiquitus nuncupata. Γάλα enim graece lac dicitur, et ideo Sibylla eos Gallos, id est, canditos vocat, dicens, tunc lactea colla auro innectuntur.' It is possible to trace Isidore's association of the Gauls with milky white skin to Jerome's commentary on St. Paul's letter to the churches in Galatians 3:1. There, Jerome (circa 347-420) raises the question of the origins of the Galatians, who lived in Anatolia, in

colour of its people, who live in the vicinity of the sun, as Isidore says in book xv. Indeed the colouring of the people demonstrates the force of the sun, for it is always hot.’⁶⁵

These notions of blackness or whiteness were however generally not free of value judgments, and as such could be viewed as expressions of Christian Europe’s superiority vis-à-vis the south and east.⁶⁶ The colour black often had a negative connotation; in the first century AD, the blackness of the Ethiopians was related to sin by the Hellenized Jewish philosopher Philo, and blackness could refer to the unbaptized, those who were ‘black in spirit’.⁶⁷ Black people (in North Africa called Ethiops, *maurus* or *niger*), and later Saracens (in the central Middle Ages, *maurus* also takes on the meaning of Saracen) were sometimes depicted as monstrous, devilish.⁶⁸ From the twelfth century, it also gained moral meaning, as the bitterness of black bile was related to sin.⁶⁹ The colour white,

present-day Turkey. According to the Church Father, Marcus Varro and many of his imitators had said many things about this people. However, as Jerome has piously pledged not to consult the heathen authors of antiquity, he instead – appropriately – cites Latin rhetorician Lactantius (c. 250-320). In the third volume of his no longer extant work admonishing the Galatians, this ‘Christian Cicero’ is to have said that ‘the Gauls were named Galatians because of the whiteness of their bodies.’ Cf. Hieronymus, *Commentariorum in epistolam ad Galatos*, Patrologia Latina 26, Col. 0353D: ‘Sed quia nobis propositum est, incircumcisos homines non introducere in templum Dei (et simpliciter fatear, multi jam anni sunt quod haec legere desivimus), Lactantii nostri quae in tertio ad Probum volumine de hac gente opinatus sit verba ponemus: Galli, inquit, antiquitus a candore corporis Galatae nuncupabantur et Sibylla sic eos appellat. Quod significare voluit poeta cum ait: Tum lactea colla γάλα innectuntur.’ Cf. *Gervase of Tilbury, Otia imperialia*, eds Banks and Binns, 284-285. Honorius of Autun, *De imagine mundi*, ed. Flint, 62. The verse ‘their milky necks encircled with gold’ is ultimately derived from Virgil’s *Aeneid* VIII vs. 660.

65 Bartholomaeus Anglicus, *De proprietatibus rerum* xv 52, ‘De Aethiopia’: ‘Aethiopia a colore populi est primitus vocata, quos Solis vicinitas tenet, ut dicit Isidore xv. Denique vim sideris prodit hominum color. Est enim iugis aestus.’ Cf. Isidore, *Etymologiae* XIV 5, 14: ‘Aethiopia dicta a colore populorum, quos solis vicinitas torret. Denique vim sideris prodit hominum color; est enim ibi iugis aestus; nam quidquid eius est, sub meridiano cardine est.’ Bartholomaeus also offers Pliny’s explanation that the men of Ethiopia were named after a black river. Cf. Pliny, *Historia Naturalis* v 44-6.

66 It is important to note that characteristics influenced by climate were deemed both physical and psychological, relating to appearance, skin colour, and mental character. David Goldenberg has stated that most remarks based on environmental theory refer to non-physical character traits, except where black-skinned peoples are concerned. David Goldenberg, ‘Racism, color symbolism, and color prejudice’, in Eliav-Feldon, Isaac and Ziegler, *Origins of Racism*, 88-108, here at 89. Goldenberg also states that in antiquity, hostility against blacks was related to their skin colour and not to a characteristic such as cowardice. However, it is difficult to draw a clear distinction between physical appearance and character based on environmental and humoral theory, which was in essence psycho-somatic. According to Snowden, in antiquity the image of the black was without prejudice. However, this is now contested. See F.M. Snowden, *Before Colour Prejudice. The Ancient View of Blacks* (Cambridge, Mass. 1983). For criticism see Van der Lugt, ‘La peau noire’, 474 note 106 for more references.

67 Goldenberg, ‘Racism, color symbolism’, 94-96. Origen, for example, continued this allegory.

68 Van der Lugt, ‘La peau noire’, 442-444. See for example Hahn, ‘The Difference the Middle Ages Makes’, and Strickland, *Saracens, Demons, and Jews*, for negative stereotyping in relation to the colour black in the Middle Ages.

69 Klibansky, Panofsky, and Saxl, *Saturn and Melancholy*, 102-118. For example, in *De medicina animae*, the Picard Hugo of Folieto writes in the twelfth century: ‘For the doctors say that the sanguine are sweet, choleric bitter, melancholics sad, and phlegmatics equable; thus in contemplation lies sweetness, from remembrance of sin comes bitterness, from its commission grief, from its atonement equanimity.’ Quoted in *Saturn and Melancholy*, 107.

conversely, was related to concepts of virtue and purity and associated with Christian rebirth in Christ.⁷⁰

In this period, besides the binary black-white, shades of whiteness seem to slowly gain meaning within 'white' Europe. With the elaboration of humoral theory awareness seemed to grow of variations between various white peoples, especially the extremely pale. In antiquity, remarks about the large-bodied and white-skinned Scythians had already expressed disdain.⁷¹ Bartholomaeus speaks of the extreme whiteness of the Slavs, which he relates to their phlegmatic complexion of clogged up senses and tardiness, hardly positive characteristics.⁷² Shades of whiteness were also remarked upon without value judgement. Thus, in Bartholomaeus' view, the 'province of Galicia is in Spain, and is so called because of the whiteness of its people, for they are said to be whiter than the other regions of the Spanish.'⁷³ As Maaïke van der Lugt remarks, at the end of the thirteenth century, Alexander of Roes called the Spanish Mauri, and remarked that the French were whiter than the Spanish, but less so than the Germans or English.⁷⁴ In some cases, this might be explicitly based upon climate theory. The commentary on Sacrobosco's *The Sphere (Tractatus de Sphaera)* ascribed to the thirteenth-century astronomer Michael Scot while lecturing in Paris in the 1230s, places Holland, Frisia, Saxony and Dacia in the frigid region, and says that those born in the arctic pole 'are white, and the colour white is the daughter of cold', for which reason one encounter many white men there.⁷⁵

If we look in more detail at Bartholomaeus' and Albertus Magnus' discussion of whiteness the suggestion arises that the notion of complexion and the idea that ethnic skin colour was determined by hot or cold climates, were intermingling. Albertus Magnus says that black people, born in the fourth or fifth clime, whose blackness is caused by their parents' complexion born in the first or second clime, will slowly turn whiter if they remain in the more northerly climes.⁷⁶ Is their skin colour here related to their complexion? Notably, Bartholomaeus also writes of the Indians that although they are 'of great stature', and never suffer headaches from the sun, they are 'sad'. Does this mean melancholic? Bartholomaeus also relates skin colour to the physiology of women from the north. In his passage on cold in his book on medicine, Bartholomaeus establishes the relationship between hot, cold, moist and dry and physical appearance, saying that 'cold is the mother of

70 Giles Constable, *The Reformation of the Twelfth Century* (Cambridge 1996), 188-193 argues that white was associated specifically with angels and a victorious Christ in the Apocalypse 1:14, where his head and hair would be snowy white as wool.

71 Goldenberg, 'Racism, color symbolism', 92.

72 Van der Lugt, 'La peau noire', 446-447.

73 Bartholomaeus Anglicus, *De proprietatibus rerum* xv 65, 'De Galicia': 'Gallicia provincia est in Hispania, a candore populi regionis sic nominata, prae caeteris enim partibus Hispanorum dicuntur esse albiore.' Isidore, *Etymologiae* ix 2,110: 'Galleci a candore dicti, unde et Galli. Reliquis enim Spaniae populis candidiores existunt. Hii Grecam sibi originem asserunt; unde et naturali ingenio callent.'

74 Cf. Alexander of Roes, *Memoriale* xv; Van der Lugt, 'La peau noire', 442-444.

75 Lynn Thorndike, *The Sphere of Sacrobosco and Its Commentators* (The University of Chicago Press: Chicago, 1949), 335-336: 'Et aliud est signum quod ibi nascentur, quia sunt albe, et albedo est filia frigiditatis, unde in Hollandia, Frisia, Saxonia, Dacia sunt in campis in magna quantitate.'

76 Cf. Albertus Magnus, *De natura loci* ii 3.

whiteness and pallor, as heat is the mother of the colours black and red'. Here he lays a relationship with two groups of peoples: 'Hence the hot regions produce black and dark men, as among the Moors, the cold regions produce white men, as among the Slavs, as Aristotle says in *On the Heavens*.' Are the Moors, in his view, therefore coloured black and red as a result of the heat, the Slavs phlegmatic and white because of the cold? 'For in the cold regions the women's wombs are disposed to conceive such progeny. Therefore, they beget children with white skins, and long, blond, straight, loose hair. The opposite applies to the torrid regions, where women bear children that are black, having little curly hair, as can be seen in Ethiopia.'⁷⁷

Those with white skins and straight blond hair are also 'tough-minded and forgetful; they have small appetites and sleep a lot, are heavy-going and slow'.⁷⁸ These characteristics of the people in the north seem to correspond greatly with the phlegmatic, who is 'listless, heavy and slow, dull of wit and forgetful, soft-fleshed and languid. He is of a bluish colour, white-faced, fearful, spitting and snivelling, sluggish and slothful, with a small appetite, little thirst. (...) His hair is soft, blond and straight; his pulse weak, thick and slow, urine white, thick, crude and discoloured. He is fat, stocky and short, his skin plain and without hair.'⁷⁹ In *On the Nature of Places*, Albertus Magnus too writes that 'conversely, the Goths and the Dacians from the west, and the Slavs from the east, having been born on the boundary of some clime and beyond, are white on account of the cold, and because their bodies are not porous, and because the place in which they live is cold, and the cold constricts their bodies, much moisture remains in them. And this extends their bodies and makes them fleshy and phlegmatic.'⁸⁰ The bodily pores are constricted, pushing the digested vapours back to the stomach. There, they turn into a watery fluid, 'as in boiling pots steam is reflected to the cover and is converted to water, and is distilled on the pot from which steam has been raised'. The retaining of fluid makes the phlegmatic man fat. Hence the oversized phlegmatic woman's life is at risk during childbirth, for the firmness of her body impedes a speedy delivery. However, northern women rarely

77 Bartholomaeus Anglicus, *De proprietatibus rerum* IV 2, 'De frigiditate': 'Frigiditas mater est albedinis et palloris, sicut caliditas mater est nigredinis et ruboribus. Unde in calidis regionibus nascuntur nigri homines et fusci, sicut apud Mauros. In frigidis vero nascuntur albi, sicut apud Sclavos, ut dicit Aristoteles in libro De celo et mundo. Et assignat rationem: quia ex dominio frigiditatis in frigidis regionibus matricibus mulierum ad talem fetum disponuntur; unde procreant albos filios secundum cutem, et longos et flavos ac molles et laxos crines habentes. E contrario autem est in calidis regionibus, ubi pariunt filios nigros, crispas et paucos habentes crines, ut apparet in Ethiopibus.'

78 Bartholomaeus Anglicus, *De proprietatibus rerum* IV 2, 'De frigiditate': 'Intellectus durus et obliviosus, appetitus parvus et somnus multus, incessus gravis et tardus.'

79 Idem, IV 9, 'De flegmatis proprietatibus': 'deses, gravis et tardus et sensu hebes, mente obliviosus, carne mollis et fluidus, colore lividus, albidus in facie, timidus, sputis et excretionibus multis plenus, piger et somniculosus, parvi appetitus, parve sitis. (...) Crine mollis est, flavus et laxus, cuius pulsus est mollis, grossus et tardus, urina alba, spissa, cruda et discolorata, statura pinguis et grossa, in extremitatibus brevis et curta, cuius cutis superficies plana et lenis ac a pilis denudata.'

80 Albertus Magnus, *De natura loci* II 3, ed. Hossfeld, 27, transl. Tilmann, 102-103: 'E contrario autem Daci et Gothi ex parte occidentis et Sclavi et Parthi ex parte orientis, nati in fine septimi climatis et ultra, sunt albi propter frigus complexionale ipsorum. Et quia corpora eorum porosa non sunt et locus eorum est frigidus constringens corpora eorum, remanet umidum multum in eis. Et hoc auget corpora eorum et facit ea carnosa et fleumatica.'

conceive, for the cold constricts their veins and instead of a menstrual flow, they tend to suffer from frequent nose bleeds.⁸¹

In *On the Nature of Places*, Albertus seemingly also classifies the German peoples as leaning towards the phlegmatic. Because of the little evaporation of bodily fluids, they have ‘a thick head of hair and it is straight, not curly. On account of the heaviness of their bodies, they do not engage in spirited activities. Their humour is thick and bodily spirit does not respond to the motion and receptivity of mental activity. Therefore, they are dull-witted and stupid.’⁸² They do conceive more readily, and the retention of the bodily spirits, making the body hotter, gives them courage and strength – a reputation wholly in keeping with Seneca’s or Tacitus’ opinion of the Germans. Luckily, as we shall see in chapter 3, German students who moved southwards to follow courses at the university of Bologna, could attain greater intelligence because of the city’s slightly warmer climate. Albertus also explicitly mentions that the Ethiopians are characterized by the choleric rather than the phlegmatic or melancholic humour.⁸³ Although their skin colour was not determined by black bile, they are thus attributed a specific temperament, that of the choleric.

In this period, the ideal sanguine complexion was reflected in the colours white-red, whereas in antiquity it had been light brown, which, as David Goldenberg remarks, is another testimony of how ethnocentricity can determine taste.⁸⁴ The sanguine temperament (a combination of hot and moist) was considered more praiseworthy as it was the outcome of perfect digestion.⁸⁵ In physiognomic treatises the ideal well-tempered person was a mixture of red and white and had a brilliant skin.⁸⁶ In Johannitius’ *Isagoge*, copied into Vincent of Beauvais’ *Mirror of Doctrine*, we can thus read in ‘On Colours’ that those with a balanced complexion are ruddy white, and that the colours of complexion reflect mental states, such as fear, wrath or sadness;⁸⁷ in addition, Vincent of Beauvais quotes Razhes, who says that blondness represents instability and madness, brilliant redness veracity and blackness a paucity of morals.⁸⁸

81 Idem, II 3, ed. Hossfeld, 27, transl. Tilmann, 103: ‘sicut in olla fervente reflectitur fumus ad operculum et convertitur in aquam et distillat in ollam, ex qua fumus est elevatus.’

82 The full quotation in idem, II 3, ed. Hossfeld, 27, transl. Tilmann, 104: ‘Et sunt pili eorum multi et laxi, non crispī. Operationes autem eorum animalis non videntur propter spissitudinem, quippe humor eorum est piger et spissus nec obedit motui et receptioni formarum animalium. Sunt igitur tales hebetes et stolidi, nisi hoc sit ex studio exercitio. Sed quando moventur, dia durant et efficiuntur multo meliores post exercitium. Huius autem signum est, quod communitas populi meridionalis semper studet circa leges et studia liberalia et artes, de quibus non multum curat populus Dacus et Sclavorum.’

83 Albertus Magnus, *De natura loci* II 3. See also Biller, ‘Proto-racial thought’, 164 note 25, where late thirteenth-century Bernard de Gordon is quoted saying that the Africans are choleric.

84 Goldenberg, ‘Color symbolism’, 90.

85 Long, ‘Introduction’, 194.

86 Ziegler, ‘Physiognomy, science’, 183-184. In the fifteenth century, Savonarola linked this to Christ’s facial complexion and moral perfection, just as Adam had a perfectly balanced complexion. I refer however to chapter 3, wherein is discussed how much earlier, Hildegard of Bingen and Alexander Neckham stated that Adam had a perfectly balanced temperament before the Fall.

87 Vincent of Beauvais, *Speculum doctrinale* XIII 50.

88 Idem, quoting Razi in *Almansore* IIa parte: ‘Color rufus aut rubeus, sanguinis et caloris innuit multitudinem. Color autem inter rubeum et album medius, equalem significat complexionem, si cum hoc

It certainly cannot be argued that twelfth-century medical texts about complexions contained elaborate discussions on ethnic character. Joseph Ziegler has shown clearly that this idealization of the perfect complexion in physiognomic treatises lacked an ethnic component before 1500.⁸⁹ As he states: ‘It is wrong to draw the learned physiognomy of the later Middle Ages into the debates about the virulent delegitimization of non-Christian minorities.’⁹⁰ In physiognomic treatises, it was Christ who represented the ideal balanced complexion, not an ethnic category, such as the Greek male in ancient Greek physiognomy.⁹¹ However, as Joseph Ziegler himself notes, the question remains to what extent learned physiognomy influenced those writers composing portraits of men of various ethnic backgrounds in for example *chansons de geste* or historiographical writing.⁹² Although the ethnic component is not mentioned explicitly in physiognomic treatises, scholars might have associated ethnic groups with colour schemes and other physical characteristics. From the beginning of the thirteenth century, ethnic categories thus tentatively creep into discussions on the humours. Although these humours did not offer an explanation for the difference between black and white skin colour, they distinguish among ‘white skinned’ groups within Europe, whose complexions could be extremely white (phlegmatic), ruddy white (sanguine), or darker (choleric).⁹³ From the late thirteenth century – falling beyond the scope of this study – ethnicities were increasingly related to specific humours, which were sometimes viewed as ‘hereditary’. Attributed behavioural, psychological characteristics, often based on prejudice, were thus increasingly given a ‘scientific basis’ and related to physical appearance. Discussions evolved, for example, about how *melancholia* under certain stellar constellations influenced the timid and lecherous character of Jews. The ‘sexual hotness’ of black women was interpreted by Albertus Magnus climatically, indicating how ‘scientific’ theory might be construed to valorise prejudice of the sexual southerner in the course of the thirteenth century.⁹⁴

Scientific theory might be subtly tampered with in order to paint a prettier picture. With the introduction of degrees of whiteness, and the distinction that the Slavs (and, as we shall see, Icelandic people) were extremely white, it would seem that Bartholomaeus was creating a dichotomy between those men living in the extreme North and in the German territories – where he himself was

etiam cutis nuda fuerit a pilis. Color flavus significat instabilitatem et maniam. Rubeus et clarus, verecundiam. Viridis aut niger, morum parvitatem.’

89 Ziegler, ‘Physiognomy, science’, 183.

90 Idem, 188.

91 Idem, 183-184.

92 Idem, 188.

93 Maaïke van der Lugt’s remark that the medical model of skin colour only refers to white people and therefore to individuals, does not take into account that there can be perceptions of difference between ‘white’ people. However, this indeed is unrelated to modern classification of races. See Van der Lugt, ‘La peau noire’, 447 and Ziegler, ‘Physiognomy, science’, 184.

94 Biller, ‘Proto-racial thought’, 174-175. See also see Biller, ‘A “scientific” view of Jews’, 143-144. Arnau de Vilanova made very specific remarks about black men shaped like monkeys, who were uncivilized, frightened of shedding blood, quick to use trickery, and full of lust.

working and living. Indeed, with a little tweaking, a little climatic engineering, it was reasonably easy to present a more positive image of the not so extreme North. Accordingly, in Bartholomaeus' text the region of the German territories – in contrast to the extreme North – was presented as more salubrious and less cold than in traditional sources. In order to do so, the boundary of the North was pushed to its extremities, and the image of those in the extreme north was dichotomized as the religious other on the fringes of Europe. At the same time, the climate of Paris – the new home of knowledge, the fountain of the clergy – was presented as a place of beauty, bounty and a salubrious environment. From the early twelfth century the Orient, conversely, though enjoying a warm climate and thus in theory producing intelligent men, was sometimes represented as a place of guile, deception and heresy.

The pursuit of temperance

As discussed in chapter 1, after sketching the geographical boundaries of Europe, from Alania and the present-day Sea of Azov to Greece and Italy to the south, Bartholomaeus attempts to define Europe in relation to the two other known continents on earth: Asia and Africa, using climate theory:

The heat of the sun persistently beats down upon the Africans, and by thus consuming their humours, makes them short-bodied, with black faces and frizzled hair. And because the spirits evaporate through the open pores, they are lacking in courage. But the opposite is true of the people in the north. For the cold, stopping the pores from without, generates humours in the body, and makes the men fleshy, and from this cold, which is the mother of whiteness, their skin and faces are white, and the vapours and spirits are pressed within, making them hotter within, and consequently, more bold.⁹⁵

Bartholomaeus is repeating the traditional north-south blueprint developed in antiquity. The passage is strongly reminiscent of Pliny's exposition that the northern people 'are fierce owing to the rigidity of their climate, but the former [southerners] wise because of the mobility of theirs'. What is striking, however, is Bartholomaeus' careful editing of the classic north-south dichotomy, as he conveniently leaves out the correlating characteristics of courage and cowardice. Indeed, in theory, the southerners' weakness was complemented by their intelligence, and the bravery of the northerners could be marred by tardiness and stupidity, as Albertus Magnus had remarked. Vitruvius, for example, had remarked that 'southern nations also, owing to the rarity of the atmosphere, with minds rendered acute by the heat, are more readily and swiftly moved to the

⁹⁵ Bartholomaeus Anglicus, *De proprietatibus rerum* xv 50, 'De Europa': 'Haec mundi particula, etsi minor quam Asia, ei tamen par est in populorum numerosa generositate, populos enim, ut dicit Plinius, alit corpore maiores, viribus fortiores, animo audaciores, forma et specie pulciores, quam faciunt Asiae vel Affricae regiones. Nam solaris aestus adurens propter eius permanentiam super Affros, illos efficit consumendo humores corpore breviores, facie nigriores, crine crispiores, et propter evaporationem spirituum per apertos poros animo defectiores.'

imagination of expedients; but northern peoples steeped in a thick climate and reluctant air, are chilled by the damp, and have sluggish minds'.⁹⁶ Pliny too emphasized the intelligence of the southerners. Bartholomaeus, however, remains silent on the subject, leaving the relative coldness of the North thus open to further discussion.

Although Judica Mendels has emphasized that regional differences remained alive among German peoples in the 'Diutsche lant', Bartholomaeus' physical descriptions of the peoples in the German territories demonstrate a degree of consistency.⁹⁷ The key lies in the influence not only of geographical positioning, but also of altitude, proximity to water and the influence of winds, as the father of the environment theory, Hippocrates, had already postulated. As Bartholomaeus explains in the entry 'De terra', up in the mountains the air is thinner and clearer, thus diffusing the sunbeams; in the valleys, the air is thicker, pressing the sunbeams together. The stronger the rays, the more fertile and plentiful the land. The winds, however, also exert influence:

For the land where the eastern wind continuously blows is temperately hot and forms the mean between humidity and dryness, as Constantine says. It is therefore fecund with flowers and corn, and most suitable for human habitation. The western wind, however, retains cold and moisture, making the land less temperate, and therefore the land in the west is less fecund. The northern wind dries and cools the land, but because the air is clean and pure, it is refining and cleansing. And so in the northern region, the men are tall of stature and elegant of shape, for the outer coldness of the air clogs up the pores, retaining the natural inner heat, by virtue whereof their stature is tall and the shape of their body seemly.⁹⁸

The purifying air of the north produces fine, strapping men. However, in geographical thought the northern wind is consistently viewed as harsh and unpleasant to man. Bartholomaeus – lecturing in the North where he performed his duties for the Franciscan friars of Madgeburg – is thus exceptional

96 Vitruvius, *De architectura* VI 1, 9, ed. Rose, 136, transl. Granger, 17: 'Item propter tenuitatem caeli meridiana nationes ex acuta fervore mente expeditius celeriusque moventur ad consiliorum cogitationes. septentrionales autem gentes infusae crassitudine caeli, propter obstantiam aeris umore refrigeratae stupentes habent mentes.'

97 Judica I.H. Mendels, 'Nationalismus in der mittelhochdeutschen und mittelniederländischen Literatur', in *Proceedings of the IVth Congress of the International Comparative Literature Association* (The Hague/Paris 1966), 298-308, here at 300-305. *Diutsch/tiutsch*, the *tiutsche zunge* and *tiutschen liute* are common denominations in this period, although regional dialects existed. Cf. Kästner, 'Der großmächtige Riese und Recke Teuton', 71-73.

98 Bartholomaeus Anglicus, *De proprietatibus rerum* XIV 1, 'De terra': 'Nam terram quam continue perflat ventus orientalis, temperate calida est et inter humiditatem et siccitatem quasi media, ut dicit Constantinus. Et ideo est foecunda floribus et fructibus, et magis congrua hominum habitationi. Occidentalis autem ventus magis attinet frigiditati et humiditati, et minus efficit terram temperatam, et ideo occidentalis terra minus est foecunda. Ventus autem septentrionalis terram desiccatur et in frigidat, tamen ratione puri aeris ipsam subtiliat et depura: unde in terra aquilonari homines sunt procerae staturae et elegantis formae, frigiditate enim exterioris aeris clauduntur pori, et calor naturalis retinetur intrinsecus, ex cuius virtute et statura ampliatur, et figura corporis decoratur.' Bartholomaeus is incorrect in attributing the source to Constantinus's *Liber pantengi*. I have not been able to trace its origins.

in his presentation of the northern wind as beneficial. In turn, as mentioned in chapter 1, the geographical chapters in *On the Properties of Things* consistently portray all the northern Germanic peoples as tall and elegantly built. The Saxons are ‘always bellicose, elegant of shape, tall of stature, robustly built, bold-hearted’. Moreover, they are ‘strong, celebrated and invincible to this day’. Those of Raetia (today’s eastern and central Switzerland and parts of southern Bavaria and Swabia) are ‘strong and courageous in life and manners, in accordance with the Germans’. The Swabians are ‘a populous people, very strong, bold and bellicose, tall, and blond-haired, with handsome and seemly faces’.⁹⁹ The people of Thuringia are ‘like the name of the country, Thuringia, harsh and extremely cruel towards their enemies’. Nonetheless, ‘it is a populous people; they are elegant, strong-bodied, hard and steadfast of heart’.¹⁰⁰ The Westphalians ‘are generally of elegant and tall stature, well-shaped and strong-bodied and brave-hearted. They have an abundant and wonderfully bold chivalrous spirit, always prepared and ready to arms’.¹⁰¹ The people of Zeeland are ‘of great stature, strong-bodied and bold-hearted’;¹⁰² those of Holland ‘elegant of body, robust, bold-hearted, handsome-faced’.¹⁰³ So too are the men of Flanders and Brabant, and of Meissen.

To an extent, this image of the tall, bold-hearted German was in keeping with tradition. Bartholomaeus quotes Isidore’s etymological explanation that the German territory brings ‘forth noble and immense peoples, about whom Isidore spoke in book IX. The German nations are many and they have immense bodies.’¹⁰⁴ However, as discussed above, *too* cold a climate bore not only strength and endurance, but dull minds, and impulsive, wild behaviour. If we take a closer look at Bartholomaeus’ entries on the German regions, it subsequently becomes apparent that Bartholomaeus is dabbling in some careful editing of his main source, Isidore, in presenting the German climate and people as not excessively harsh. Thus, Bartholomaeus conveniently omits Isidore’s next remark about the Germans, that ‘they are savage tribes, hardened by very severe cold.

99 Bartholomaeus Anglicus, *De proprietatibus rerum* xv 153, ‘De Suevia’: ‘Gens populosa, nimis fortis, audax et bellicosa, procero corpore, et flava crine, venusta facie et decora.’ Also: ‘Suevi pars Germanorum fuerunt in fine septemtrionis de quibus Lucanus: “Fundit ab extreme flavos aquilone Suevos”. Quorum fuisse centum pagos et populos multi prodiderunt.’ Cf. Orosius, *Historiae adversum paganos* 6, 9, 1: ‘Suebos maximam et ferocissimam gentem quorum esse centem pagos et populos multi prodidere.’

100 Bartholomaeus Anglicus, *De proprietatibus rerum* xv 166, ‘De Thuringia’: ‘Gens quidem secundum nomen patriae Thuringia, id est, dura contra hostes, maxime et severa. Est enim populus numerosus, elegantis staturae, fortis corpore, durus et constans mente...’

101 Bartholomaeus Anglicus, *De proprietatibus rerum* xv 170, ‘De Westphalia’: ‘Populus communiter elegantis staturae est et procerae, venustae formae et fortis corpore, et audax mente, militiam habet copiosam ac mirabiliter animosam, promptam ad arma continue et paratam.’

102 Idem, xv 143, ‘De Selandia’: ‘Gens magnae staturae, fortis corpore et audax mente.’

103 Idem, xv 110, ‘De Hollandia’: ‘Gens elegans est corpore, robusta viribus, audax animo, venusta facie.’

104 Idem, xv 13, ‘De Alemannia’: ‘Unde a foecunditate gignendorum populorum a germinando Germania est vocata, ut dicit Isidore libro xv. Generosos enim et immanes gignit populos, de quibus dicitur in libro ix Isidore. Germaniae nationes sunt multae immania corpora habentes.’

They took their behaviour from that same severity of climate.’¹⁰⁵ He then resumes Isidore’s description, saying that ‘they are strong, courageously and fiercely brave, indomitable, living by raiding, and hunting’.¹⁰⁶ But where Isidore states: ‘There are many tribes of Germani, varied in their weaponry, differing in the colour of their clothes, of mutually incomprehensible languages (...) The monstrosity of their barbarism gives a fearsome quality even to their names,’ Bartholomaeus assures us that they have ‘fair and shapely faces, long, blond hair, they are generous, merry and agreeable’.¹⁰⁷ – liberality, merry minds and kind hearts the attributes of the sanguine man.¹⁰⁸ Bartholomaeus, who as said composed his encyclopaedia in Saxony, is also quick to emphasize that the generous, merry and agreeable character ‘especially applies to the Saxons, who surpass the others in the aforementioned things. Isidore says of them that the Saxon people live on the ends and coasts of the ocean, and are swift and strong.’¹⁰⁹ Again, the Franciscan makes a slight alteration, for Isidore mentions that they live in ‘impassable marshes’;¹¹⁰ instead, according to Bartholomaeus, the land is ‘fruitful and irrigated by the best rivers’, and the mountains are rich in metals.¹¹¹ In fact, as argued in the previous chapter, Bartholomaeus seems to present much of North-West Europe as a garden of delights. Saxony, producing corn, fruit and wine, has ‘many towns and strong castles, not only in the mountains but also on the plains. There are rivulets and ponds and lakes; the air is

105 Isidore, *Etymologiae* IX 2, 97, transl. 197: ‘nationes sevissimis duratae frigoribus. Qui mores ex ipso caeli rigore traxerunt.’

106 Bartholomaeus Anglicus, *De proprietatibus rerum* XV ‘viribus fortes, audaces animo et feroces, indomiti, raptu, captibus et venationibus occupati.’ Cf. Isidore, *Etymologiae* IX 2, 97: ‘ferocis animo et semper indomiti, raptu venatuque viventes’.

107 Bartholomaeus Anglicus, *De proprietatibus rerum* XV 13: ‘facie decori et formosi, comati et coma flavi, liberales animo, hilares et iucundi’.

108 As the hugely popular poem ‘Regimen sanitatis Salernitanum’, known as the ‘Flower of Medicine’, states: ‘Fat and jolly of nature are those [of sanguine humour]. (...) They are generous, loving, joyful, merry, of ruddy complexion, singing, solidly lean, rather daring, and friendly.’ *Regimen Sanitatis Salernitanum* vs. 267, 273-274, ed. and transl. Patricia Willett Cummins, *A Critical Edition of Le regime tresutile et tresproufitable pour conserver et garder la santé du corps humain* (Chapel Hill 1976), 244: ‘Natura pingues isti sunt atque iocantes. (...) Largus, amans, hylaris, ridens, rubeique coloris, / Cantans, camosus, satis audax, atque benignus.’ It is said to have been written for the Norman duke Robert Curthose upon his return from the Holy Land during the First Crusade, although there is no evidence to corroborate this claim. It might be a verse compilation of John of Spain’s twelfth-century prose translation of the Arabic *Sirr al-Asrar*, the *Secretum secretorum*. For the manuscripts containing the ‘Salernitan Regimen of Health’, see Patricia W. Cummins, ‘A Salernitan Regimen of Health’, in *Allegorica* 1 (1976), 78-81, who suggests twelfth-century John of Milan as the possible author. Regardless, the poem, of which there are many versions, was immensely popular, with more than 100 manuscripts and hundreds of editions extant. The text edited here by Cummins is based upon a late fifteenth-century edition of the Latin poem and French commentary. The earliest surviving manuscript dates from the thirteenth century. Cf. ed. Cummins, ‘Introduction’, ix-xi.

109 Bartholomaeus Anglicus, *De proprietatibus rerum* XV 13, ‘De Alemannia’: ‘Saxonum gens in oceani finibus et litoribus constituta virtute et agilitate agilis.’

110 Isidore, *Etymologiae* IX 2, 100: ‘paludibus inviis’. Cf. Orosius, *Historiae adversum paganos* VII 32, 10.

111 Bartholomaeus does, however, copy Isidore’s statement that the Saxons take their name from ‘saxosus’, stony, that they are a hard and powerful people, standing out above the other ‘piratical’ peoples. Bartholomaeus Anglicus, *De proprietatibus rerum* XV 13, ‘De Alemannia’: ‘Valentissimum sit genus hominum praestantius caeteris piratis, non enim per terram solis suis hostibus sunt infesti, verum etiam per mare illis qui se molestant, ac si essent saxei, sunt importabiles atque duri.’

salubrious, there is plenty of free pasture. It abounds in cattle and sheep. In its mountains are various kinds of minerals and metals to be found, as Herodotus says...'. Swabia is 'a very pleasant land, bearing corn and wine in many places'. Westphalia 'is full of woods, pastures, and is more suitable for raising cattle than for producing crops, and is supplied with water from numerous springs and streams.'¹¹²

Even more merry, agreeable and charming are the English, who according to Bartholomaeus are 'full of mirth, free, born to jest, a free people, free of spirit and free of tongue'.¹¹³ As we shall see in chapter 8, this image of a merry England, also bearing strong relation to its salubrious environment, is celebrated in many Latin verses. Its incongruence with England's northerly position led some scholars such as Robert the Englishman to search for explanations why England was placed almost beyond the habitable climes in traditional geography.

Besides accentuating the pleasant, benevolent nature and agreeable characteristics of the German and English territories, Bartholomaeus juxtaposes the extreme coldness of the farthest reaches of the North. In Iceland, there are mountains of snow which are so frozen hard that they resemble glass. White bears live in this region; the men live off hunting and fishing and are clad in the skins of bears and wild beasts. The people are large bodied, strong and full of 'whiteness'.¹¹⁴ The Slavs, as we have seen, are sluggish, extremely white, and phlegmatic as a result of the extreme coldness.

Bartholomaeus does not explicitly tamper with the positions of the North. However, the Bavarian Dominican friar Albertus Magnus, working in Cologne, takes it one step further. Struggling with the southerly position of the temperate clime, he pushes it up northwards from the fourth to the sixth (from 41 1/3°) and seventh clime (from 45 1/3°, corresponding to the Hellespont). After all, the place of exceeding cold (90°) lay beyond the north in an uninhabitable region, and that of exceeding heat (24°) beneath the tropic [of Cancer]. In the sixth and seventh climes, the men handsome, noble, fair, while those in the fourth clime were small and dark.¹¹⁵ Albertus Magnus also emphasizes the longevity of those living in regions in the north, in firm opposition of Aristotle's *Length and Shortness* and *Problems*, which stated that men in the hot regions enjoyed longevity.¹¹⁶ We have seen that Albertus termed the Germans as 'thick'. However, as a result of this northward shift of the latitudinal positions of the climes, Albertus Magnus could also be seduced into ridiculing French 'cowardice', thus implying that the French were living in the torrid zone. For although they presented themselves as *hardi* – the characteristic of the ideal chivalrous knight – their deeds never

112 Idem, xv 170, 'De Westphalia': 'Est enim terra multum nemorosa, pascuosa, plus alendis gregibus quam ferendis frugibus apta, multis fontibus et amnibus est irrigua. Emosa, scilicet Lippia atque Rura, et multiis aliis, fontes habet salis, et montes fertiles in metallis, abundat fructibus, glandibus, nucibus atque pomis, etiam feris, porcis, pecudibus et iumentis.'

113 Idem, xv 14, 'De Anglia': 'Anglia plena iocis gens libera apta iocari / Libera gens cui libera mens et libera lingua'. The reference to freedom might refer to freedom from the yoke of tyranny; cf. Bartlett, *Gerald of Wales*, 83-84.

114 Bartholomaeus Anglicus, *De proprietatibus rerum* xv 173, 'De Islandia'.

115 Albertus Magnus, *De natura loci* i 11.

116 Peter Biller, *The Measure of Multitude: Population in Medieval Thought* (Oxford 2003), 282-285.

amounted to much – they were after all cowards, displaying characteristics very similar to those of the choleric. Another intellectual to tamper with the zones is Roger Bacon, who in the later thirteenth century added three ultra-climes to the fringes of the seventh clime and the polar circle.¹¹⁷

In the early thirteenth century, the influence of climate and humoral theory was thus eliciting reactions from mendicant friars such as Bartholomaeus and Albertus about the allegedly harsh, cold climate of the north in relation to the character of its inhabitants on the north-south axis. However, just as Hippocrates had originally juxtaposed east, west and south, in the twelfth and thirteenth centuries the theory of environment was also applied on the east-west axis. In the south-east (the Levant) – from a north-western perspective – the warm climate (in ancient theory the ideal temperate region – might produce men of great intellect. In the final section of this chapter, this we shall explore first in relation to the concept that knowledge had travelled from East to West, the *translatio studii*. Secondly, we shall look briefly at the reaction in the West to the supposed higher intelligence and weak physical strength of those in the East (and South), the territory of Islam.

Environment and the translation of knowledge

Although the theme of the translation of knowledge from Athens via Rome to Paris was formulated first at the court of Charlemagne, it resurged at the end of the twelfth century with the strengthening legal, institutional and ideological power basis of the Capetian monarchy in Paris.¹¹⁸ Expanding on the Carolingian theme of the translation of knowledge, the privileged relation between France, the clergy and chivalry was expounded, which existed in mutual dependence, as martial prowess and knowledge went hand in hand.¹¹⁹ In addition, in the course of the thirteenth century, the tight relationship between France, the monarchy, and the clergy was related both to the workings of St Denis as well as the presence of learning in Paris.¹²⁰ This reached its temporary apex under Louis VIII, the ‘most Christian’ king. In the thirteenth century, William of Nangis, a monk at the abbey of St Denis, thus embellished the fleur-de-lis with the symbolism that Jesus had adorned the French kingdom with three graces: faith, learning and military strength, each standing for one petal of the fleur-de-lis.¹²¹

117 Roger Bacon, *Mathematicae in divinis utilitas*, ed. Bridges, *Opus Majus*, vol. 2, 180-310.

118 Alcuin was the first to state that knowledge had translated to Paris. It was repeated by Notker the Stammerer in the ninth century, who related it to the parallel movement of the *translatio imperii*. See Serge Lusignan, ‘L’université de Paris comme composante de l’identité du royaume de France: étude sur la thème de la *translatio studii*’, in Rainer Babel and Jean-Marie Moeglin (eds), *Identité régionale et conscience nationale en France et en Allemagne du Moyen Age à l’époque moderne* (Sigmaringen 1997), 59-72, here at 59-61.

119 Cf. the *Grandes Chroniques de France*, prologue, ed. Viard, 5-6: ‘Si com aucun veulent dire, clergie et chevalerie sont touz jors si d’un acort, que l’une nu puet sanz l’autre.’ Gassman, *Translatio studii*, 125-135. See further chapter 7.

120 Lusignan, ‘L’université de Paris’, 61-62. The translation was related to the confusion of St Denis with Denis the Aeropagite, from Athens, who had purportedly come to France with knowledge.

121 Idem, 63.

From the twelfth century, students in Paris, a university founded by the Capetian monarchy, were quick to capitalize on this motif. According to Serge Lusignan, the *topos* was employed primarily to elicit favour from the monarchy to support and protect the clergy.¹²² However, of interest here is that the emphasis on the salubrious atmosphere in Paris offers an environmental prerequisite for the flourishing of knowledge. This is rooted among other sources in Vitruvius' *On Architecture*, where a chapter is dedicated to the 'Salubrity of sites', which should be temperate and free from marshes.¹²³ In the 1260s, Thomas Aquinas wrote extensively on the choice of location of a city, which must be in a temperate environment, with a good supply of food and water, benefitting health, success in military matters, political governance, and full of amenities.¹²⁴ We can therefore suppose that there existed among scholars the notion that the location and environment of cities was relevant to the well-being of their inhabitants.

If environment determined the well-being of the inhabitants, then emphasizing the salubrity of Paris would imply that its inhabitants were physically and mentally better equipped for gathering knowledge. In a letter written in Paris between 1175 and 1190, Guy of Bazoches, choir master at Chalons-sur-Marne, speaks of the regal city not only retaining the sweetness of natural gifts, with the headed by the powerful jewel of royal dignity, but 'seated in the bosom of a delightful valley crowned with a chain of mountains', adorned with Ceres and Bacchus, where the seven sisters of the liberal arts reside.¹²⁵ In William the Breton's *Deeds of Philips Augustus*, composed for the most part in the 1210s, a clear relation is drawn between climate and the translation of learning.¹²⁶ Paris is a beautiful city, the preceptress of the world. It is a cultural centre because of the 'admirable amenity', the abundance of goods and the special prerogatives bestowed on it by the French kings Louis VII and Philips.¹²⁷ As Louis Gassman remarks, the beauty and delightfulness of the city here relate to aesthetics, a good site and a climate beneficial to learning and intelligence.¹²⁸ It was a sweet territory, soothing to the mind, restoring the humoural balance of its inhabitants.¹²⁹ Indeed, Bartholomaeus makes the same point: a city deserving merit above all others, elevates not only France but every corner of Europe in knowledge and morals, serving all in their necessities. Paris, as a mother of truth, presents herself as debtor to men wise and unwise. 'Abounding in riches, powerful in wealth, delighting in peace, the city's air, the river, fields, meadows and mountains of beauty

122 Idem, 64-65.

123 Vitruvius, *De architectura* I 4.

124 Thomas Aquinas, *Tractatus de rege et regno ad regem Cyprii*, in *Opera Omnia* (Paris 1889), vol. 27, 336-340; quoted by Gassman, *Translatio studii*, 371.

125 Guy of Bazoches, *Liber epistularum Guidonis de Basochis*, epistola IV, ed. Herbert Adolfsson, 14-16: 'Sedet in gremio vallis deliciose, quam montium coronat ambitus.' Cf. Gassman, *Translatio studii*, 214-215 and 373-374.

126 William's predecessor, Rigord, the 'official' historian of St Denis, expressly derives the name Paris from Trojan Priamus' son Paris in the East in chapter 37. Again, the origins lie in the East.

127 William the Breton, *Gesta Philippi Augusti*, 152, ed. Delaborde, vol. 1, 230: 'admirabilem amenitatem'; quoted by Gassman, *Translatio studii*, 366.

128 Idem, 368.

129 For the concept of sweetness see Mary Carruthers, 'Sweetness', in *Speculum* 81 (2006), 999-1013, here at 1010.

refresh and comfort the eyes of the philosophers gathered there, weary of study'.¹³⁰ At the end of the thirteenth century, Pierre Dubois in fact stipulated that children of French monarch must be born in Paris because of the environment.

However, if the West, *in casu* Paris, had become the home of knowledge, translating from East to West, still the concept existed that those in the south and east were naturally more intelligent because of the warm climate.¹³¹ For example, according to Albertus Magnus and Bartholomaeus Anglicus, the Indians were decidedly clever. Yet, in the twelfth century, the south and east were inhabited by Saracens, the religious other. The incongruence between theory and reality was a problem which Ptolemy had already grappled with in *his* representation of the intelligent inhabitants of the South, the Ethiopians, who in his view were savage. His solution was to state that the wise southerners lived in the southern part of the temperate middle zone. Intellectuals in North-West Europe, too, were unwilling to praise Saracen intelligence based upon climate theory. Their solution, however, was to present the religious other as cunning and devious on account of the fact that they inhabited hot regions, infusing the classical notion of climate with religion, as their devious and timid behaviour was also related to heresy.

In this representation, we can see that the axes of north and south crossed those of east and west.¹³² In classical climate theory, timidity was explained by referring to a person's thin blood, whereas fearless bravery on the battlefield was caused by thick blood.¹³³ In William of

130 Bartholomaeus Anglicus, *De proprietatibus rerum* xv 57, 'De Francia': 'Urbs locuples divitiis et opibus praepotentes pace gaudentes, aere et flumine philosophantibus congruentes, camporum, pratorum et montium pulcritudine sessorum in studio oculos recreantes et reficientes.' He also mentions that there are good houses and streets, and enough food for all. Compare a similar remark about the air of Poitiers in the Florilegium of St Gatiien, produced at the end of the twelfth century: 'Pictavis aurea, gloria terrea, terra quietis, / utilis aere, clarior ethere, plena poetis.' Printed in A. Wilmart, 'Le florilège de Saint-Gatiien. Contribution à l'étude des poèmes d'Hildebert et de Marbode', in *Revue Bénédictine* 48 (1936), 3-40, here at 32. There are many verses lauding Paris; Bautier, 'Peuples, provinces', 15-18; for example the verse 'O dulcis Parisius, parens sine pare / solita scholaribus bona tot parare / urbs nulla se audeat tibi comparare.'

131 In reality, Paris certainly was not the only new centre of learning, as Bologna, Oxford and for example Salerno were important university towns, which many scholars visited. However, Paris appropriated the image of the new centre of learning following the concept of the *translatio studii*.

132 Van der Lugt, 'La peau noire', 453-454.

133 In the first century BC, Vitruvius had discussed the influence of environment on man's physical and mental state with regard to the ideal location of houses, stating that the southerners, 'because of their thin blood, fear to resist the sword, but endure heat and fever without fear, because their limbs are nourished by heat. Those persons who are born under a northern sky, are weak and more timid in face of fever, but fearlessly resist the sword owing to their fullness of blood'. Vitruvius, *De Architectura* VI, 1, 3-4, ed. Rose, 133-134, transl. Granger, 13: 'Ex eo quoque quae sub septentrionibus nutriuntur gentes inmanibus corporibus, candidis coloribus, directo capillo et rufo, oculis caesiis, sanguine multo ab umoris plenitate caelique refrigerationibus sunt conformati. Qui autem sunt proximi ad axem meridianum subiectique solis cursui, brevioribus corporibus, colore fusco, crispo capillo, oculis nigris, cruribus squalidis, sanguine exiguo solis impetu perficiuntur. itaque etiam propter sanguinis exiguitatem timidiores sunt ferro resistere, sed ardores ac febres sufferunt sine timore, quod nutrita sunt eorum membra cum fervore. itaque corpora quae nascuntur sub septentrione a febre sunt timidiora et inbecilla, sanguinis autem abundantia ferro resistunt sine timore.'

Malmesbury's *Deeds of the English Kings*, similar images are produced especially in relation to the Saracen's timidity:

The least valiant of men, and having no confidence in hand-to-hand combat, love fighting on the run (...) his bolts having drunk their fill of liquid poison, it is venom and not valour that brings death to the man they strike. If he achieves anything, therefore, I would ascribe it to fortune and not fortitude (...). In fact it is very well known that every nation born in Eastern clime is dried up by the great heat of the sun; they may have more good sense, but they have less blood in the veins, and that is why they flee from battle at close quarters: they know that they have no blood to spare.¹³⁴

In Gerald of Wales' concept of East and West, the same images of weakness, wealth, poison and guile in the East and bravery, health and strength in the West, are intricately interwoven. In Gerald of Wales' *Description of Wales*, the Saxons and Germans are said to derive their cold nature from the cold regions; the English were still pale and cold inside, as a result of their wet, cold complexion (Gerald is exceptional in using a deviant version of climate theory in which cold climates produces cold men, hot climates hot people). Referring to the myth of British descent from the Trojan Brutus, the Britons were however hot, sun-burnt and confident as a result of their hot and dry humour, which explained their bold speech, and dark complexion (which they had retained since Trojan times).¹³⁵ They were also cleverer than most men in the West. According to his *Topography of Ireland*, in the East, on the other hand, men use poison instead of violence in order to achieve success, using guile rather than physical strength. In the West, men are more robust. With rhetorical flourish, Gerald states the east-west binary in climatic terms: 'There [the East] the atmosphere is serene, here it is salubrious; there the people are fine-witted; here their minds are robust; there they arm themselves with poisons, here with manly vigour; there they are crafty, here bold in war.'¹³⁶ According to Robert Bartlett, in his *On the Instruction of Princes*, Gerald of Wales further enlaces classical climate theory and religious thought with the theory that the devil adjusts the heresies to the nature of the climate. Thus, Muhammad enticed the Arabs to enter into polygamous relationships because he knew easterners were full of lust because of the heat of their region. The Cathars, similarly, lure

134 William of Malmesbury, *Gesta Regum Anglorum* IV 347, ed. and transl. Mynors, Thomson and Winterbottom, vol. 1, 600-603: 'homines inertissimi, et qui, comminus pugnandi fidutiam non habentes, fugax bellum diligent. (...) tela mortifero suco ebria, in homine quem percutit non virtus sed virus mortem facit. Quicquid igitur agit, fortunae, non fortitudini attribuerim (...). Constat profecto quod omnis natio quae in Eoa plaga nascitur, nimio solis ardore siccata, amplius quidem sapit, sed minus habet sanguinis; ideoque vicinam pugnam fugiunt, quia parum sanguinis se habere norunt.'

135 Gerald of Wales, *Descriptio Kambriae* I 15, ed. Dimock, vol. 6, 193-194.

136 Gerald of Wales, *Topographia Hibernica* I 37, ed. Dimock, 71, transl. based on Thomas Forestor's translation at http://www.yorku.ca/inpar/topography_ireland.pdf, 31: 'Ibi aeris serenitas, hic salubritas. Ibi gens arguta, hinc robusta. Ibi venenis dimicatur, hic viribus. Ibi ars, hic Mars.' Cf. Bartlett, *Gerald of Wales*, 164-167.

men in the cold climes who are avaricious to not pay tithes.¹³⁷ In the *Deeds of God through the Franks*, the monk Guibert of Nogent equally applies climate theory to heresy in the east: ‘However, the faith of the Easterners, which has never been stable, but has always been variable and unsteady, searching for novelty, always exceeding the bounds of true belief, finally deserted the authority of the early fathers. Apparently, these men, because of the purity of the air and the sky in which they are born, as a result of which their bodies are lighter and their intellect consequently more agile, customarily abuse the brilliance of their intelligence with many useless commentaries.’¹³⁸ From this arose many heresies and plagues, the land producing ‘vipers and nettles’.

From the early twelfth century, climate theory thus excited remarks about the relative temperance of the west in relation to the south. As we have seen, this was a reaction to the troubling imagery inherited from antiquity, as parts of the North had in broad strokes inherited a reputation of backwardness. By pushing the boundaries further North, both by climatic engineering and by juxtaposing the North with the extreme North, scholars such as Bartholomaeus tweaked this image. At the same time, on the east-west axis, notions of environmental influence might now also take on a religious context, as Saracen ingenuity might be explained as work of the devil. The intertwining of classical climate theory and religion – embodying religious differences – would mark an important departure from the ancient theory of climate. Was sin a moral disposition, caused by climate, and tied to religion?

The concept of environmental theory left some room for adaptation, as complexions might change as a result of external influences. The question was, however, to which extent humoral complexions were fixed or fluid, and to which extent other factors, such as religion and God’s grace, or cultural influences might interfere with ethnic characteristics.¹³⁹ In chapter 3, we will examine in more detail the problem whether complexions were deemed fixed and innate or mutable. Indeed, in medical theory scholars differentiated between two types of complexion: the *complexio naturalis*, which was subject to environmental influences and other variables and changeables; and the *complexio innata* or *radicalis*, which was considered much more stable.¹⁴⁰ How these mutable or fixed complexions might form the building blocks of hereditary character types, and to which extent one might be able to overcome sinful dispositions tied to these character types – the task set all Christian believers – are questions discussed in the following chapter.

137 Gerald of Wales, *De principis instructione* I, ed. Warner, vol. 8, 70: Bartlett, *Gerald of Wales*, 166-167.

138 Guibert of Nogent, *Gesta Dei per Francos* I 2, ed. R.B.C. Huygens (Turnhout 1996), 89-90, transl. Robert Levine, 26: ‘Orientalium autem fides cum semper nutabunda constiterit et rerum molitione novarum mutabilis et vagabunda fuerit, semper a regula verae credulitatis exorbitans, ab antiquorum Patrum auctoritate descivit. Ipsi plane homines pro aeris et celi cui innati sunt puritate cum sint leviores corpulentiae et idcirco alacrioris ingenii, multis et inutilibus commentis solent radio suae perspicacitatis abuti.’

139 For example, as Robert Bartlett argues, in explaining the character of the Britons, Gerald of Wales also puts forward social causes. Cf. Bartlett, *Gerald of Wales*, 166.

140 Ziegler, ‘Physiognomy, science’, 193.