I USED both to marvel and to regret that so many excellent and
divine arts and sciences, which we know from their works and
from historical accounts were possessed in great abundance by the
talented men of antiquity, have now disappeared and are almost
entirely lost. Painters, sculptors, architects, musicians, geometers,
rhetoricians, augurs and suchlike distinguished and remarkable
intellects, are very rarely to be found these days, and are of little
merit. Consequently I believed what I heard many say that
Nature, mistress of all things, had grown old and weary, and was
no longer producing intellects any more than giants on a vast and
wonderful scale such as she did in what one might call her
youthful and more glorious days. But after I came back here to
this most beautiful of cities from the long exile in which we
Albertis have grown old, I recognized in many, but above all in
you, Filippo, and in our great friend the sculptor Donatello and in
the others, Nencio, Luca and Masaccio, a genius for every laudable
enterprise in no way inferior to any of the ancients who gained
fame in these arts. 1 Then realized that the ability to achieve the
highest distinction in any meritorious activity lies in our own
industry and diligence no less than in the favours of Nature and of
the times. I admit that for the ancients, who had many precedents
to learn from and to imitate, it was less difficult to master those
noble arts which for us today prove arduous; but it follows that
our fame should be all the greater if without preceptors and
without any model to imitate we discover arts and sciences

DEDICATION OF THE ITALIAN TEXT

hitherto unheard of and unseen. What man, however hard of
heart or jealous, would not praise Filippo the architect when he
sees here such an enormous construction towering above the skies,
vast enough to cover the entire Tuscan population with its
shadow, and done without the aid of beams or elaborate wooden
supports? 2 Surely a feat of engineering, if I am not mistaken, that
people did not believe possible these days and was probably
equally unknown and unimaginable among the ancients. But I
will speak elsewhere of your praises and the talent of our friend
Donatello, and of the others who are dear to me for their virtues.
I beg you to go on, as you are doing, finding means whereby
your wonderful merit may obtain everlasting fame and renown,
and if you should have some leisure, I shall be glad if you will
look over this little work of mine, De Pictura, which I did into
Tuscan for you. 3 You will see that there are three books. The
first, which is entirely mathematical, shows how this noble and
beautiful art arises from roots within Nature herself. The second
puts the art into the hands of the artist, distinguishes its parts and
explains them all. The third instructs the artist how he may and
should attain complete mastery and understanding of the art of
painting. Please, therefore, read my work carefully, and if any-
thing seems to you to need amendment, correct it. No writer was
ever so well informed that learned friends were of no use to him:
and I want above all to be corrected by you, so as not to be
criticized by detractors.
Leon Battista Alberti

On the Art of Building in Ten Books

translated by
Joseph Rykwert, Neil Leach, and Robert Tavernor

The MIT Press
Cambridge, Massachusetts
London, England
From Angelo Poliziano to his Patron, Lorenzo de' Medici, Greetings.

Leon Battista the Florentine, of the great Alberti clan, was a man of rare brilliance, acute judgment, and extensive learning. Among the many excellent works that he left to posterity were the ten books he had composed on architecture. These he had corrected and edited with the utmost care; he was on the point of publishing them and dedicating them to you¹ when fate struck him down. His kinsman Bernardo,² a wise man and very devoted to you, wanting both to honor the memory and wishes of that great man, and to acknowledge his gratitude for the favors you have shown him, has had the original manuscripts transcribed and gathered into one volume to present to you, Lorenzo de' Medici.

It was his particular desire that I should commend both his gift and its author, Battista, to you. This did not seem at all advisable to me, for fear that my own poor talents would only diminish so perfect a work and so great a man. The work will gather much more praise to itself when it is read than I could bestow on it by any of my words; and my tribute to the author is constrained by the brevity of a letter, as well as the poverty of my style.

Surely there was no field of knowledge however remote, no discipline however arcane, that escaped his attention; you might have asked yourself whether he was more an orator or a poet, whether his style was more majestic or graceful. So thorough had been his examination of the remains of antiquity that he was able to grasp every principle of ancient architecture, and renew it by example; his invention was not limited to machinery, lifts, and automata,³ but also included the wonderful forms of buildings. He had moreover the highest reputation as both painter and sculptor, and since he achieved a greater mastery in all these different arts than only a few can manage in any single one, it would be more telling, as Sallust said about Carthage,⁴ to be silent about him than to say little.

I would like you, Lorenzo, to give this book a place of honor in your library, read it carefully yourself, and make sure that it is widely published. For it is worthy to live on the lips of the learned,⁵ and the patronage of the arts, abandoned by all others, rests with you alone. Farewell. ♦
Here Begins the Work of Leon Battista Alberti on the Art of Building.¹ Lege Feliciter.

Many and various arts, which help to make the course of our life more agreeable and cheerful, were handed down to us by our ancestors, who had acquired them by much effort and care.² All of them seem to compete toward the one end, to be of the greatest possible use to humanity, yet we realize that each has some integral property, which shows it has a different advantage to offer from the others. For we are forced to practice some of these arts by necessity, while others commend themselves to us for their utility, and still others we appreciate because they deal with matters that are pleasant to know. I need not specify these arts: it is obvious which they are. Yet, if you reflect on it, you would not find one among all the most important arts that did not seek and consider its own particular ends, excluding anything else. If, however, you were eventually to find any that proved wholly indispensable and yet were capable of uniting use with pleasure as well as honor, I think you could not omit architecture from that category; architecture, if you think the matter over carefully, gives comfort and the greatest pleasure to mankind, to individual and community alike; nor does she rank last among the most honorable of the arts.

Before I go any farther, however, I should explain exactly whom I mean by an architect; for it is no carpenter that I would have you compare to the greatest exponents of other disciplines: the carpenter is but an instrument in the hands of the architect.³ Him I consider the architect, who by sure and wonderful reason and method, knows both how to devise through his own mind and energy, and to realize by construction, whatever can be most beautifully fitted out for the noble needs of man, by the movement of weights and the joining and massing of bodies. To do this he must have an understanding and knowledge of all the highest and most noble disciplines.⁴ This then is the architect. But to return to the discussion.

Some have said that it was fire and water which were initially responsible for bringing men together into communities,³ but we, considering how useful, even indispensable, a roof and walls are for men, are convinced that it was they that drew and kept men together. We are indebted to the architect not only for providing that safe and welcome refuge from the heat of the sun and the frosts of winter (that of itself is no small benefit), but also for his many other innovations, useful to both individuals and the public, which time and time again have so happily satisfied daily needs.

How many respected families both in our own city and in others throughout the world would have totally disappeared, brought down by some temporary adversity, had not their family hearth harbored them, welcoming them, as it were, into the very bosom of their ancestors.⁶ Daedalus received much praise from his contemporaries for having constructed a vault in Selinunte where a cloud of vapor emanated so warm and gentle that it induced a most agreeable sweat, and cured the body in an extremely pleasant manner.⁷ What of others? How could I list the devices—walks, swimming pools, baths, and so forth—that help to keep us healthy? Or even vehicles, mills, timepieces, and other smaller inventions, which nonetheless play so vital a role in our everyday lives? What of the methods of drawing up vast quantities of water from hidden depths for so many different and essential purposes? And of memorials, shrines, sanctuaries, temples, and the like, designed by the architect for divine worship and for the benefit of posterity? Finally, need I stress how, by cutting through rock, by tunneling through mountains or filling in valleys, by restraining the waters of the sea and lakes, and by draining marshes, through the building of ships, by altering the course and dredging the mouths of rivers, and through the construction of harbors and bridges, the architect has not only met the temporary needs of man, but also opened up new gateways to all the provinces of the world? As a result nations have been able to serve each other by exchanging fruit,
spices, jewels, experience and knowledge, indeed anything that might improve our health and standard of living.

Nor should you forget ballistic engines and machines of war, fortresses and whatever else may have served to protect and strengthen the liberty of our country, and the good and honor of the state, to extend and confirm its dominion. It is my view that, should you question all the various cities which within human memory have fallen into enemy hands by siege, and inquire who defeated and conquered them, they would not deny that it was the architect; and that they could easily have scorned an enemy armed with weapons alone but could no longer have resisted the power of invention, the bulk of war machines and the force of ballistic engines, with which the architect had harassed, oppressed, and overwhelmed them. On the other hand, those besieged would consider no protection better than the ingenuity and skill of the architect. Should you examine the various military campaigns undertaken, you would perhaps discover that the skill and ability of the architect have been responsible for more victories than have the command and foresight of any general; and that the enemy were more often overcome by the ingenuity of the first without the other’s weapons, than by the latter’s sword without the former’s good counsel. And what is more important, the architect achieves his victory with but a handful of men and without loss of life. So much for the use of architecture.

But how congenial and instinctive the desire and thought for building may be to our minds is evident—if only because you will never find anyone who is not eager to build something, as soon as he has the means to do so; nor is there anyone who, on making some discovery in the art of building, would not gladly and willingly offer and broadcast his advice for general use, as if compelled to do so by nature. It often happens that we ourselves, although busy with completely different things, cannot prevent our minds and imagination from projecting some building or other. Or again, when we see some other person’s building, we immediately look over and compare the individual dimensions, and to the best of our ability consider what might be taken away, added, or altered, to make it more elegant, and willingly we lend our advice. But if it has been well designed and properly executed, who would not look at it with great pleasure and joy? Need I mention here not only the satisfaction, the delight, but even the honor that architecture has brought to citizens at home or abroad? Who would not boast of having built something? We even pride ourselves if the houses we live in have been constructed with a little more care and attention than usual. When you erect a wall or portico of great elegance and adorn it with a door, columns, or roof, good citizens approve and express joy for their own sake, as well as for yours, because they realize that you have used your wealth to increase greatly not only your own honor and glory, but also that of your family, your descendants, and the whole city.

The island of Crete was much celebrated for the tomb of Jupiter, Deles was revered more for the beauty of its city and the majesty of its temple than for the fame of the oracle of Apollo. As to the imperial authority and fame that the Latins got by their building, I need only mention the various tombs and other ruins of past glory still visible all around, which have taught us to accept much of the historical tradition that may otherwise have seemed less convincing. Of course Thucydides did well to praise the ancients who had the vision to adorn their cities with such a rich variety of buildings as to give the impression of having far greater power than they really had. Has there been one among the greatest and wisest of princes who did not consider building one of the principal means of preserving his name for posterity? But enough on this.

To conclude, then, let it be said that the security, dignity, and honor of the republic depend greatly on the architect: it is he who is responsible for our delight, entertainment, and health while at leisure, and our profit and advantage while at work, and in short, that we live in a dignified manner, free from any danger. In view then of the delight and wonderful grace of his works, and of how indispensable they have proved, and in view of the benefit and convenience of his inventions, and their service to posterity, he should no doubt be accorded praise and respect, and be counted among those most deserving of mankind’s honor and recognition.

Aware of this, we have undertaken, for our own pleasure, to inquire more fully into his art and his business, as to the principles from which they are derived, and the parts of which they are composed and defined. Finding them to be very diverse in kind, infinite (almost) in number, admirable in nature, and marvelously useful, I wondered what human condition, what part of the state, what class of citizen owed more to the architect, since he is responsible for every comfort: was it prince or private citizen, religious or secular institution, business or leisure, or individuals as opposed to mankind as a whole? We therefore decided for many reasons, too lengthy to enter into here, to collect and commit them to these ten books.

They will be dealt with in this order: first we observed that the building is a form of body, which like any other consists of lineaments and matter, the one the product of thought, the other of Nature; the one requiring the mind and the power of reason, the other dependent on preparation and selection; but we realized that neither on its own would suffice without the hand of the skilled workman to fashion the material according to lineaments. Since buildings are set to different uses, it proved necessary to inquire whether the same type of lineaments could be used for several; we therefore distinguished the various types of buildings and noted the importance of the connection of their lines and their relationship to each other, as the principal sources of beauty; we began therefore to inquire further into the nature of beauty—of what kind it should be, and what is appropriate in each case. As
in all these matters faults are occasionally found, we investigated how to amend and correct them.


Here Begins the First Book on the Art of Building by Leon Battista Alberti. The Lineaments.1

Since we are to treat of the lineaments of buildings, we shall collect, compare, and extract into our own work all the soundest and most useful advice that our learned ancestors have handed down to us in writing, and whatever principles we ourselves have noted in the very execution of their works. We shall go on to report things contrived through our own invention, by careful, painstaking investigation, things we consider to be of some future use. But since it is our desire to be as limpid, clear, and expeditious as possible in dealing with a subject otherwise knotty, awkward, and for the most part thoroughly obscure, we shall explain, as is our custom, the precise nature of our undertaking. For the very springs of our argument should be laid open, so that the discussion that follows may flow more easily.2

Let us therefore begin thus: the whole matter of building is composed of lineaments and structure.3 All the intent and purpose of lineaments lies in finding the correct, infallible way of joining and fitting together those lines and angles which define and enclose the surfaces of the building. It is the function and duty of lineaments, then, to prescribe an appropriate place,4 exact numbers,5 a proper scale,6 and a graceful order for whole buildings and for each of their constituent parts, so that the whole form and appearance of the building may depend on the lineaments alone. Nor do lineaments have anything to do with matter, but they are of such a nature that we may recognize the same lineaments in several different buildings that share one and the same form, that is, when the parts, as well as the siting and order, correspond with one another in their every line and angle. It is quite possible to project whole forms in the mind without any recourse to the material by designating and determining a fixed orientation and conjunction for the various lines and angles. Since that is the case, let lineaments be the precise and correct outline, conceived in the mind, made up of lines and angles, and perfected in the learned intellect and imagination.

Now, as we wish to inquire into the inner nature of building and construction as a whole, it may be of some relevance to consider what were the origins and what the evolution of those dwelling places we call buildings. And, if I am not mistaken, what follows may be taken as the correct account of the whole matter. ♦

In the beginning, men sought a place of rest in some region safe from danger,7 having found a place both suitable and agreeable, they settled

*The corresponding folios in the editio princeps appear at the beginning of each chapter.
down and took possession of the site. Not wishing to have all their household and private affairs conducted in the same place, they set aside one space for sleeping, another for the hearth, and allocated other spaces to different uses. After this men began to consider how to build a roof, as a shelter from the sun and the rain. For this purpose they built walls on which a roof could be laid—for they realized that in this way they would be the better protected from icy storms and frosty winds; finally they opened windows and doors in the walls, from floor to roof, so as to allow entry and social gathering within, and also to let in the sunlight and the breezes at the right time, as well as to let out any moisture and vapor that may have formed inside the house. Whoever it was who first started to do these things, the goddess Vesta, daughter of Saturn, or the brothers Hostilius and Hipperius, or Gallio, or Thraso, or the Cyclopes Typhnicus, I believe that such were the original occasion and the original ordination of building. The business has grown, I believe, through experience and skill, so that it is now almost without bounds, what with the introduction of the various building types; of which some are public, others private, some sacred, others profane, some of practical necessity, others merely for the permanent adornment of the city, while yet others are for more temporary pleasures. But no one will question our account of their origins.

Since this is the case, the elements of which the whole matter of building is composed are clearly six: locality, area, comparison, wall, roof, and opening. If these elements are clearly recognized, what we have to say will be understood more easily. We shall therefore define them as follows: by locality we mean all that land which is seen to surround the prospective building; the area is a part of this locality. We shall define the area as that certain, particular plot of land which is to be enclosed by a wall for a designated practical use, included in this definition is any surface within the building on which our feet may tread. Comparison is the process of dividing up the site into yet smaller units, so that the building may be considered as being made up of close-fitting smaller buildings, joined together like members of the whole body. The wall we shall term all that structure which rises from the ground upward in order to support the weight of the roof, or which acts as a screen to provide privacy for the interior volumes of the building. We shall refer to the roof, not only as that uppermost part of the building which fends off the rain, but also, in general, as whatever is extended in length and breadth above the head of anyone walking below, such as ceilings, vaults, arches, and so forth. We shall call an opening anything within the building affording entry or exit to man or thing.

We shall deal with these matters and their every aspect, but first we will make some observations, which are fundamental to, and so much part of, the whole subject that they are highly relevant to our argument. If we were to consider those attributes with which each of the parts we have enumerated should be endowed, we would come up with three that should never be overlooked, and which are most becoming to roofs, openings, and so on. That is, their individual parts should be well suited to the task for which they were designed and, above all, should be very commodious; as regards strength and endurance, they should be sound, firm, and quite permanent; yet in terms of grace and elegance, they should be gnomed, ordered, garlanded, as it were, in their every part. Now that we have set down the roots and foundations of our discussion, let us continue our argument.

As for the locality, the ancients put much effort into ensuring that it should contain (as far as possible) nothing harmful and that it should be supplied with every convenience. Above all, they took the greatest care to avoid a climate that might be disagreeable or unwholesome; it was a very prudent precaution, even an indispensable one. For while there is no doubt that any defect of land or water could be remedied by skill and ingenuity, no device of the mind or exertion of the hand may ever improve climate appreciably; or so it is said. Certainly the air that we breathe and that plays such a vital role in maintaining and preserving life (as we can ourselves observe), when really pure may have an extraordinarily beneficial effect on health.

Who can have failed to notice the extensive influence that climate has on generation, growth, nourishment, and preservation? As you may have seen, those who enjoy a purer climate surpass in ability others subjected to a heavy and damp one; for that very reason, so it was said, the Athenians were much sharper than the Thebans.

Climate, we may therefore agree, depends on the location and formation of the landscape; some reasons for this variation will seem quite obvious, while others, because of their very obscure nature, lie well hidden and totally evade us. We shall examine the obvious ones first and then those which are obscure, so that we will know how to select the most advantageous and healthy locality in which to live.

The ancient theologians called the atmosphere Pallas; Homer makes her a goddess and calls her Glaukopis, a reference to air so pure that it is completely transparent by nature. It is quite apparent that the healthiest form of air is that which is the purest and least polluted, the most easily pierced by sight, the most transparent and light, and which is always serene and largely constant; whereas we term as pestilential any form of air whose consistency is so cloudy and vaporous as to render it dense and fetid, so that it hangs heavy on the brow and dulls that keenness of sight. I believe that the sun and the wind, more than any other factor, are responsible for determining these two conditions. We shall not, however, discuss questions of physics here—that is exactly how the force of the sun manages to draw up
vapors from the innermost bowels of the earth and then raise them to high heaven, or how once gathered together into a huge cloud in the vastness of the sky, either through their immense weight or from being dried out by the action of the sun's rays to one side, they topple over in that direction, thereby producing a great rush of air and arousing the winds, and driven by thirst, plunge into the ocean; finally, replenished by the sea and pregnant with moisture, wandering once more in the atmosphere, they are propelled by the winds and squeezed like sponges, and discharge the droplets of moisture they are carrying to form rain, thus renewing the vapors on land. Whether this theory we report is correct, or whether wind is some dry exhalation of the earth, or hot vapor expelled by the force of cold, or just a breath of air, or yet air that has been disturbed by the movement of the earth or by the course and radiation of the stars, or whether it is that general animating spirit that moves of its own accord, or even something that is not a separate entity in itself but rather consists of air that has been burnt by the heat of the highest ether and reduced to liquid form, or whether there is any further theory or explanation, sounder or based on more ancient authority, I suggest we should pass it by, as it may detract from the main argument.

All this will, if I am not mistaken, help us to appreciate the reason why some parts of the world are seen to enjoy the most delightful of climates, while others, which may be their very close neighbors, are marred by gloomy weather and murky days. I must suppose that the reason for this is their unfavorable position as regards the sun and the winds. Cicero says that Syracuse was sited so that there was not a single day in the whole year on which the inhabitants could not see the sun; such a situation is very rare, however, and if there are no strong reasons or grounds for avoiding it, it is the location to be sought in preference to any other. The locality to be chosen, therefore, should be quite free of raging clouds and all the dense thickness of vapors. Those who investigate such matters have observed that the rays and heat of the sun act more skillfully on dense than on rarefied materials, as they do on oil compared to water, or on iron compared to wool. From this they deduce that the air is thick and heavy wherever the heat is more oppressive. The Egyptians, striving to prove their ascendency over all other nations of the world, boasted that man was first created in their country, and that he could only have been created in a land where he would be able to live in the best of health; for they had been endowed, above all else, with certain favors by the gods—a wonderful climate and a perpetual spring. But even among the Egyptians, writes Herodotus, those who live nearest Libya, where the wind never varies, are by far the healthiest. Certainly various towns in Italy, and other nations, appear to have become unhealthy and pestilential places for no other reason than their sudden temperature changes from hot to cold.

It is no bad thing, then, to consider the quality and angle of the sun to which a locality is exposed, so that there is no excess of sunlight or shade; the Garamantes cursed the sun at its rising and setting, so scorched were they by the excessive persistence of its rays, while other nations appear pallid from living in almost perpetual night. This variation is not so much dependent on the lesser or greater inclination of the earth's axis (although that is an important factor) as on the configuration of the ground itself and its degree of exposure to the sun and the winds. Personally, I prefer gentle breezes to winds, though I would consider winds, however fierce and blustering, less irksome than a stagnant and heavy atmosphere. Water that does not move, Ovid tells us, absorbs badness. What of air? I might almost say that it takes pleasure in movement. For it is my view that movement dissipates the vapors that rise from the earth, and movement consumes them. I would prefer, however, that these winds reach me broken down by intervening woods and mountains or exhausted by the length of their journey, and I would ensure that they do not pass over land where they might pick up and bring us anything harmful. For this reason it is advisable to avoid any location in whose neighborhood anything noxious is given off, such as offensive smells or unclean vapor rising from marshes, and in particular from polluted waters and ditches.

Naturalists agree that any river fed by the melting snows brings with it a cold, dense air; but of waters, none can be so foul as those which spoil away by remaining stagnant; the less it is dispersed by favorable winds, the greater the effect of the contagion on the neighborhood. The winds, they say, cannot all be classed as healthy or unhealthy of their nature. Pliny, on the authority of Theophratus and Hippocrates, considers Aquilo to be the most favorable for the restoring and maintaining of health; the naturalists all declare Auster the most damaging to mankind, and they do not even consider it safe to leave cattle grazing in the fields while it blows. And again the stork will never hazard flying into Auster; when Aquilo blows, dolphins hear voices calling with the wind, but with Auster they hear much less well, and only against the wind. They say too that when Aquilo prevails, eels may survive for six days out of water, although such is not the case with Auster, so dense is it and its power so unhealthy. As Auster brings illness, and especially catarrh, so Coro makes us cough. South-facing coastlines are not recommended, primarily because the reflected rays of the sun afflict them with two suns, in effect: one burns down from the sky, the other up out of the water. Such places are subjected to sharp changes in temperature, as the chilling shades of night draw in at sunset. Some are even of the opinion that at sunset the overall effect of the sun, both direct and reflected off the water, sea, or mountains, is at its most harmful, since a place that has already been heated by the sun all day is made sweltering by the additional heat produced by the reflection. If on top of all
these effects you are also exposed to oppressive winds, what could be more harmful or intolerable? Morning breezes too have been rightly reproved, as they bring with them raw vapors as they rise.

We have discussed the sun and the winds, and the obvious influence we feel they exert on the climate, whether it is healthy or not; we have done so briefly, as seemed relevant to our argument, and we shall deal with them in greater detail in their appropriate place.27

4

When selecting the locality, it is worth ensuring that everything is to the liking of those who are to live there, be it the nature of the place or the company they will have to keep.

In no way would I build a city on a steep and inaccessible ridge of the Alps, as Caligula had intended, unless compelled by the utmost necessity.28 I would also avoid the uninhabitable wilderness that Varro describes in Rhineland Gaul,29 and Caesar in contemporary Britain.30 Nor would I like to live on birds' eggs alone, as they used to on the island of Oenoe in the Black Sea,31 or on acorns, as in Pliny's time in some regions of Spain.32 In short, I would not wish the locality to lack anything that might prove useful.

Quite rightly, Alexander did not want to found a city on Mount Athos: the project of the architect Polycrates, although splendid in other respects, could not supply the inhabitants with sufficient provisions.33 Yet Aristotle might have found a site with difficult access particularly pleasing for the foundation of a city,34 while I notice that it was the practice of some nations to leave vast expanses on their borders deserted and forsaken, so as to deny any advantage to an enemy. The question of whether such methods should be condoned or not shall be dealt with elsewhere; but provided they are of public benefit, I find no reason to condemn their adoption.

In general, however, I would prefer to site buildings in a locality that has many different points of access, to allow the easiest possible provision by ship, cart, or beast, both in summer and in winter. The locality should not be too damp with excess of waters nor too parched by drought, but it ought to enjoy a comfortable, temperate climate. If this ideal condition is not possible, rather let it be somewhat cold and arid than too hot and humid, for it is possible to counteract the cold with roofs and walls, through clothing and the heat of the fire, or by moving about; dryness, meanwhile, is not considered particularly harmful to body or soul; indeed, they say that dryness may harden a man and cold make him rugged, but moisture will always make the body languid, and heat cause it to wilt. One may see how men are physically strong and free of disease during the cold season or in cold climates, although it is generally conceded that while those in cold places have superior physiques, those in warm places have sharper wits.

From Appian, the historian, I have learned that the main reason why the Numidians were so long-lived was that they never had to endure any cold winters.35 The best locality of all, however, is a moderately warm and moist one, for it will produce men tall and elegant in stature and cheerful in character. The next most convenient are the sunniest parts of snowy countries or the most moist, shady zones of arid, sunburnt regions.

But there is no site less suitable or scornful for any building whatsoever than one that is hidden away in some valley; for (to pass over such obvious reasons as that, being out of sight, it can enjoy no honor, while being denied the delights of a view, it can have no charm) it will inevitably suffer the ruinous torrents of rain and swirling floods; by absorbing too much damp, it will always rot; and it will constantly exhale earthy mists so damaging to man's health. In such a place no man could retain any strength, as the spirit wilts, nor any body show stamina, as its joints are weakened; mold will grow on books; tools will rust away, and everything in the stores will decay from excess of moisture, until it is all ruined. Furthermore, should the sun break through, reflected rays would cause the heat to grow more intense, but if kept out, the shade will make the air coarse and stagnant. What is more, should the wind penetrate as far as that, it would only rage with more violence and fury by being forced through fixed channels, but should it not reach there, the air would become as thick as mud. It would not be unfair then to consider such a valley as a puddle or a stagnant pool of air.

Let the site therefore have a dignified and agreeable appearance, and a location neither lowly nor sunk in a hollow, but elevated and commanding, where the air is pleasant and forever enlivened by some breath of wind. It should, moreover, be well endowed with all the useful and pleasurable things of life, such as water, fire, and food. Care should be taken, however, to ensure that it contains nothing that might prove harmful to the inhabitants or their possessions: Springs should be laid bare and sampled, and their water tested by fire to check that it contains nothing sticky, putrid, or difficult to digest that might make the inhabitants ill. I shall not dwell here on the goiter and stones for which water may be responsible. I shall pass over the more remarkable and miraculous effects it may have, since the architect Vitruvius has already listed them in a most learned and elegant manner.36

There is an aphorism of the physician Hippocrates, that those who drink untreated water that is heavy and unpleasant to taste will develop a hot and swollen belly, while the rest of their bodies, their elbows, shoulders, and faces, will become remarkably weak and emaciated.37 They will also suffer adverse clotting of the blood from defective spleens, falling prey to many infectious diseases; in summer runny bowel movements caused by bile secretion and discharge of humors will weaken them; and then all year

Book One

12

Lineaments

13