The foundation, planning and building of new towns in the 13th and 14th centuries in Europe: an architectural-historical research into urban form and its creation
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PART II: ASPECTS OF NEW TOWN CREATION

In the following four chapters important aspects of the planning of new towns in the high-period of town foundation will be examined from a thematic point of view. The choice of sites for new towns will be investigated in chapter 5; the methods of design, specifically the use of geometry, will be closely studied in chapter 6; in chapter 7 the subject of the persons involved in the planning of the towns and their professions will be scrutinised; and in chapter 8 the contemporary ideologies concerning the phenomenon of the town and its society will be studied for as far as they had consequences for the creation of new towns. These subjects are particularly relevant because until now they have hardly been studied in any context wider than a regional one, and especially with regard to the subjects of the use of geometry in plan design and the professional status of the planners there appear to exist notable misinterpretations which are, nonetheless, widely accepted among scholars.

In chapter 9, then, a reconstruction is made of the process of new town creation as it would generally have taken place, and the various elements that generally formed part of the physical form of a new town will be discussed.

For the study of these themes, the material from the three clusters of towns treated in chapters 1 to 3 plays an important role, but will be used together with specific material regarding other newly founded towns elsewhere in Europe. In this way a more inclusive general picture can be presented of the phenomenon of new town foundation in the period.

5 THE SITING OF NEWLY FOUNDED AND TRANSPALTED TOWNS

For the success of a town, it is of crucial importance that it be located on an auspicious site. Many newly founded towns were never successful, no matter how much their lords may have stimulated them, simply because they were founded on badly chosen sites. The place where a town was created had to offer favourable conditions. For instance, the site preferably had to offer its residents the possibility of living healthily, safely and comfortably. Moreover, for its economic success a town preferably had to be well sited within the larger pattern of settlement, so that it would profit from its location within the transportation network.

In this chapter some specific aspects of the siting of the new towns from the high-period of town foundation will be discussed. The first paragraph will concern aspects of general importance for the choice of location. Then the movement of settlements from high- to low-lying sites will be studied in par. 5.2. Finally, par. 5.3 will treat the general subject of town-transplantations in the 12th to 14th centuries in Europe.

5.1 Aspects of general importance in the siting of new towns

Of course, new towns were preferably created at the most favourable locations. If possible, such a location would have been favourable to the founder as well as to the settlers, but this was not always actually the case. Settlers generally sought a dwelling place that was advantageous in terms of economy, health, comfort, protection against human and natural dangers, and legal status. But the founding lords may have had different economic interests and they also had (concealed) political interests, which may have suggested other (sorts of) locations.

At the root of plans to create new towns generally lay the desire of the founding lords to generate extra income or to enlarge or consolidate their power and authority. In many cases, however, the idea to found a new town would have been prompted by a specific situation at a specific place or within a specific geographical area. It could happen, for instance, that foundation plans were prompted by an abundance of uncultivated or extensively used land in a specific area, as was the case with many bastides, or by the desire to provide a specific area with an administrative or economic centre under the direct control of the lord, as with many of the Edwardian new towns in Wales and the terre nuove fiorentine. Other stimuli that were specific to particular

1 See pars. 1.4, 2.5, 3.5, 9.1.
areas could be: damage done by war, brigandage or flooding; requests for protection or re-settlement from a local population; or a threat that part of the population was about to move away to a new settlement in a neighbouring lordship. These motivations also played a role in the foundation of the terre nuove and the bastides. Even more site-specific was the wish to provide a castle with a settlement in order to secure the supply of victuals to the castle, as was the case with some of the new towns in northern Wales. Apart from these examples, various other specific situations are imaginable with regard to the ‘management’ of a specific piece of land or a specific part of the population, which could work as stimuli for new town creation in specific places.

Thus, the area that was considered for the creation of a new town was often, at least to a certain extent, already determined by the circumstances that prompted the idea of town foundation. Some places more or less ‘asked for it’. This being said, while it may have been largely clear which area would serve as the territory of the new town, a new spatial organisation still remained to be created. Often, this organisation would largely be determined by the pre-existent situation: existing settlements, agricultural fields, road networks and existing boundaries with neighbouring lordships or parishes would determine the new plans for the spatial structure. And, of course, this was even more the case for the natural geographical circumstances: relief, hydrological regime, soil and vegetation had a strong influence on the pre-existent spatial structure as well as on the new plans.

Considering the requirements for the siting of a new settlement, it was of course of utmost importance that the location was well-suited to human existence. Essential conditions were the availability of drinking water and fertile ground or the possibility to produce food by cattle breeding, hunting or fishing, the absence of natural hazards (as for instance floods, avalanches or malaria), shelter against strong winds, etcetera. It was also of importance that the ground was flat and firm enough to build on, and that building materials could be obtained in the surrounding area. Vitruvius had already described similar conditions in his famous treatise of the first century B.C. and, thirteen centuries later, Thomas Aquinas echoed him in his advice to the king with regard to the foundation of new towns. For the new towns of the high-period of town foundation it was also essential that they be well connected to the inter-regional transportation network and that they be defendable. These two aspects will be discussed in the following paragraphs.

5.1.1 Defence

For the sake of defence, the locations for new towns were often chosen so that the topography of the terrain would hinder enemy attack. Therefore, natural relief, water and swamp were, within certain limits, seen as welcome obstacles if they surrounded a town’s site. This was the norm in Europe, as it was almost anywhere else in the pre-industrial world, when towns were sometimes at risk of being plundered by enemy forces or marauding bands and when they were often used as strategic strong points in the control and defence of a region.

One of the very few contemporary sources that explicitly comments on the strategic importance of a specific site for a new town concerns Flagella in southern Italy, founded by Emperor Fredrick II. A letter from the emperor to his subjects in the region, dated 1242, not long after the foundation of the town, mentions that ‘We have made provisions to found our city Flagella to chastise our enemies in that location where an unreliable easier passage was seen.’ Apparently, the town was founded specifically in this place in order to secure a passage into Fredrick’s southern-Italian territory against the papal state, which had an important strongpoint in the nearby city of Ceperano.
But it was very rare that military tactics were the one and single reason for the foundation of a town; in most cases it was not even a main motive. Therefore, defence was mostly not of prime importance in the choice of site for a new town. In fact, the demands of accessibility and centrality, which are quite opposite to the requisite of defendability, were most often of greater significance.

5.1.2 Water

The presence of water was of preeminent importance for the success of a town. Of course, water was necessary for consumption, for which purpose it was preferably taken from springs, wells or cisterns. But water was also needed in all kinds of production stages in crafts and agriculture. In a different sense, water was of great importance for transportation, especially of bulk goods and for long distance trade. In a time when roads were still, to a large extent, impassable for carts, waterways were the main routes of transport. Water was also used for defence. For instance, towns were often surrounded by artificial ditches filled with water or were sited in river bends, in order to make use of the water as a natural defensive barrier. Water was also essential for food production in the form of fish, which formed an important part of the human diet. Finally, running water served as a major source of motive power, by way of mills. Many towns had a water mill located in the immediate area, right from the time of the town’s foundation. Like the fishing rights, the rights over the mills were usually a lordly prerogative, which were often farmed out to towns or to individual entrepreneurs.

For the sake of trade and transportation, towns were preferably sited near a navigable river or, better still, at the confluence of two navigable rivers, near a coastal harbour, or at the mouth of a navigable river. This last type of location, either on the coast or at the highest point to which the tide reached, was generally the most advantageous for trade, transportation and fishing. Natural waters were, however, not always reliable as routes of transport. Quite a number of towns experienced significant difficulties from the change of water courses, the sea level that fell or rose or the silting up of rivers and harbours. Therefore, canals were sometimes dug to provide navigable access to towns.

Not all towns could be sited on navigable water, however. But, at the very least, a town had to be sited near to a stream to provide for its need of water for use in crafts, agriculture and fish-breeding and as a source of energy.

5.1.3 Roads

Every settlement needs roads or paths to connect it to its surroundings. Towns, however, need something more to be successful: they need not only roads that connect it to the surroundings, but also to other markets and to centres of higher rank. So new towns with economic ambitions would preferably be sited on a trade route of importance. Such a trade route could also be a navigable river or the sea, as already described in the chapters on new towns in Wales and southwest France. But in those regions land routes were of great importance as well: in Wales primarily the coastal route, and in Aquitaine the pilgrim routes to Santiago de Compostela. The Florentine terre nuove were all planted on roads of super-regional importance that linked Florence to the neighbouring provinces and beyond. No waterways existed in the region where they were built.

From a number of documents concerning the plantation of new borghi franchi in northern and central Italy, it appears that the location for plantation was already established when the project was initiated, but only in general terms like ‘on the road to Reggio’. Subsequently, a special committee would be sent out to establish which specific site was best suited for the foundation.

Sometimes the founding lords were not happy to just adapt their actions to the existing topographic situation. So, in order to create a new well-suited site for town foundation, they would build new roads and

7 See par.9.1.
8 See pars.1.5, 2.5.4.2, 9.1.3, 9.20.
9 As, for instance, New Wichelsea in southeast England, Aigues-Mortes in southern France and ’s-Gravenzande in Holland. In the decades following their foundation these were all places of considerable importance, but after their harbours became largely inaccessible they declined to relative insignificance.
11 Beresford 1967, pp.105-141.
12 Fasoli 1942, p.201; Friedman 1988, pp.335-337, doc.18.
bridges themselves. Sometimes this was only done some years after the town’s foundation, in which case the inhabitants would usually contribute to the effort. Thus, new towns with more or less illustrative names like Chelmsford, Bridgnorth and Boroughbridge in England, Puente la Reina on the pilgrim route to Santiago in Navarre, as well as its later namesake Pons Regine in southwest France, were all founded at new bridgeheads. The most famous example, however, is Munich (München) in Bavaria. In 1157/58 Duke Henry the Lion destroyed the bridge over the river Isar at Föhring, in the territory of his adversary the bishop of Freising, where the important trade route of the Salzstraße crossed the river. Subsequently he ordered a bridge to be built about 5 km. to the south, in his own territory near a monastery with a village. Right next to the bridge he founded the town of Munich. In this way he not only gained control over a new strategic site, he also gained control over the toll on an important trade route and he created the right conditions for a very successful new town. In many similar cases, roads were diverted in order to lead the traffic through newly planted towns. In some cases, as at Bawtry and Chipping Sodbury in England, the diversion of the road can clearly be seen in the town plan. In paragraphs 3.8.3 and 3.8.4 we have already described how the Florentine new towns of Scarperia and Firenzuola were explicitly sited so that they would lie on a new pass-road which was under construction at the time. The best location, in terms of access to the interregional transport routes, was at the place where two important routes crossed each other. Preferably, a point was chosen where a road crossed a river, so that the town would also serve as a place of transfer, as a safeguard of the strategic site, and as a toll-point for the ford, bridge or ferry.

Most clearly, the importance of a through-going road for a town can be seen in northern Spain. From the late 11th century, after the pilgrimage to Santiago de Compostela had become popular, a considerable number of new towns were founded along the different sub-routes of the pilgrim route. Mostly, the importance of the road is clearly visible in the longitudinal layout of these towns, which is focused on a central street, and is sometimes also clear from their names, by the suffix *del Camino* or *de la Calzada* (‘of the [pilgrim] route’ or ‘of the road’).

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13 Beresford 1967, pp.116-118; Torres-Balbas 1954, p.55; Lauret, Malebranche & Séraphin 1988, p.289. (Other names for Pons Regine were or are La bastide-de-Pont-la Reine or Labastide-Chalosse.)
14 Rutte 2002, pp.35-36.
15 See Beresford 1967, plate 6 (Chipping Sodbury); Aston & Bond 1976, p.91.
16 Other examples of new towns to which roads were diverted are Radstadt in Austria (founded 1280) and Hradisch in Bohemia (founded 1257). In both cases the founders had a new road laid out to the new towns and promulgated a regulation that forbade travellers from taking another route. (Fischer 1952, p.50)
17 Beresford 1967, pp.112-120; Divonne 1993, pp.12-26.
18 Torres Balbas 1954, pp.45-50. The most well known of the new towns on the pilgrim route is probably Pamplona. More typical of the group, however, is Santo Domingo de la Calzada (founded before 1125).
5.1.4 Mutual distance and centrality

Regarding the distribution of towns over the land, one must also consider the mutual distance between them. In England and Wales a distance of 8 to 16 kilometres generally seems to have been the rule.\(^9\) In the German lands the minimum distance between one market and the other was set at one Meile (c. 8 km.) according to the standard laws of the Sachsenspiegel (Saxony), whereas the distance had to be at least three Meile according to the Schwabenspiegel (southern Germany).\(^20\) In the well-populated areas of western, central and southern Europe, the mutual distance generally seems to have been around 10 to 15 km. But, of course, there would be variation in the mutual distance following the geographical situation: in areas of great importance for transport, on rivers or on the coast, or in areas of great fertility or a wealth of minerals, towns could be set much closer to one another. If towns were spaced too closely, though, the general result would be that the ones with the less favourable geographical position and the fewer tenurial privileges would not develop well.\(^21\)

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\(^9\) Bond 1990, p.86.

\(^20\) Fischer 1952, p.220. It is not clear what the exact length of the Meilen in these sources were, but in the German lands it generally measured between about 5,530 and 10,050 m.

Sometimes, towns received a market monopoly for a certain region or within a certain radius. There even are cases where the inhabitants of a certain area were obliged by regulation to visit a specific market once in a while. Aberystwyth in Wales, for instance, was granted a market monopoly within a 15 mile (c. 24 km.) radius.\(^\text{22}\) In this way, a hinterland could be artificially created for a town. But, in general, new towns would be located so that they would lie in a central position in relation to a hinterland with boundaries that would be more or less ‘topographically logical’.

In some cases, however, towns appear to have purposely been created close to existing towns. In central-eastern Europe, for instance, independent Neustädte (‘Newtowns’) were sometimes added to successful older towns, under the control of the same lord. Sometimes there may have been enough room for both towns to flourish, possibly even in mutual stimulation by complementarity of functions, as was the case at Gdansk and Cracow.\(^\text{23}\) This appears not to have been the case, however, with the towns of Stralsund (founded shortly before 1234) and nearby Schadegard (date of foundation and exact location unknown). Almost nothing is known of Schadegard, but in a charter of 1269 it can be read how Prince Wizlaw II decided to ‘completely annihilate’ his new town of Schadegard and to rebuild it some time later on another location, so that ‘his beloved burgesses of Stralsund’ would thrive and profit from it in the future.\(^\text{24}\)

In various other cases, new towns were founded close to older towns of other lords, which may also have been newly founded, in order to compete, or often rather to prevent the draining off of subjects, capital and economic activity. Normally, this would decrease the chance of great success for both places. Various cases are known where such a new town was destroyed by the inhabitants of the older town, for fear of economic competition. This was the case with the Hildesheim Dammstadt in Germany, which was founded in 1196 and destroyed in 1332 by the inhabitants of the Hildesheim Altstadt.\(^\text{25}\) Something similar happened at Hagestein in The Netherlands. It was founded in 1382, probably explicitly to act as a competitor to nearby Vianen, which had been founded about half a century before. In 1406, however, the lord of Vianen and his subjects destroyed Hagestein, leaving its remnants only visible today in the allotment of the fields.\(^\text{26}\)

\[\text{(fig. 5.2)}\]

5.1.5 Possession of the ground

A very important limitation to the choice of site was, of course, that the founder of a new town could only found it on land that he had in his own possession. Sometimes, this could be a shared possession, as with the paréages, by which two or more lords pooled their efforts in order to found a new town.\(^\text{27}\) In any case, the site for a new town had to be found within the territory of the lord(s). Many newly founded towns were not located in very favourable places. The reason for such cases may have been that better sites were simply not available to the founder. When the founder only had a small territory in which he wanted to create a town, it could even happen that this territory was hardly (or not at all) large enough to support an urban centre.

If the founder did not dispose of a good site to found a town, he could also try to buy or trade land. This happened, for instance, with the foundation of Conwy in Wales and Montecurliano in Tuscany.\(^\text{28}\)

Because new towns were preferably sited on important traffic routes, they often came to be located on the margins of lordships and parishes, since seas, lakes, rivers and important roads often formed the boundaries of the districts.\(^\text{29}\) Hence, new towns that extended on two sides of a road or river may have formed part of more than one lordship or parish.\(^\text{30}\) Another common reason for the proximity of new towns to bound-

\(^{22}\) Dyer 2000, pp.517-518.

\(^{23}\) Czacharowski 1990.

\(^{24}\) Fritze 1995, p.141.

\(^{25}\) Schich 1993, pp.84-85.


\(^{27}\) See par.2.4.2.

\(^{28}\) For Conwy, see par.1.7.4. For the foundation of Montecurliano in Tuscany, around 1179, the Aldobrandeschi counts traded land with the bishop of Grosseto, who also reserved the right to build his palace, a cathedral and houses for canons there. (Cortese 2004, p.301) For the re-foundation of Fontanetto Po in northern Italy the abbey of San Genuario traded land with various members of the existing community in order to come into possession of the whole area of the new town. (Panero 1979, p.106) See also Beresford 1967, pp.14-15, 102-104.

\(^{29}\) Beresford 1967, pp.116, 134. For rivers this may seem more logical than for roads, but sometimes old Roman roads that remained important routes could become the boundaries of parishes and lordships. (Beresford 1967, pp.112-113; see fig.5.1)

\(^{30}\) Beresford 1967, pp.134-137.
aries was that they were often planted on marginal, mostly common, land. This was done so that no valuable arable land, which usually lay closer to the centre of the parish or district, had to be given up.31

5.1.6 Pre-urban settlement nuclei

Many, or possibly most, new towns were founded on sites with some sort of existing settlement, such as a village, hamlet, farm, castle or abbey.32 New towns were preferably sited in locations that were favourable to human settlement, and it appears that these locations often already had been recognised as such in earlier times, so that people were already living there.33 Many new towns were founded by lords next to their castles or by abbeys right outside their gates.34

Castles and abbeys could form successful ‘partnerships’ with towns, because their demand for victuals and other goods and services might form the initial basis of the local economy. Local businesses might also profit from visitors to the castle or abbey, which traffic could be substantial at the time of rallies or feasts.35 An additional advantage could be that the inhabitants of a town could seek refuge in a castle or a walled monastery in times of unrest.

Older hamlets or villages may have stayed more or less intact in or next to a new town, as seems to have been the case in Newborough in Wales (fig.1.41) and in the bastides of Septfonds and Villeréal (fig.2.44); or may have been demolished to make way for a new spatial structure, as may have happened at the Florentine new town of San Giovanni. Sometimes, only the church of an older settlement was left in place, as happened in the bastides of Vianne (fig.8.3) and Lisle-sur-Tarn and in Fontanetto Po in Lombardy (fig.8.8).

5.2 High and low sites

As described in chapter 3, the Florentine terre nuove were all built on relatively low sites in mountain valleys and most of the bastides of southwestern France were also sited on low locations in valleys. The preference for such sorts of sites for towns was something relatively new. Older settlements often lay on hills or mountainsides. This also holds true for many other regions in Europe with rugged landscapes.

These low-lying sites were chosen not only because the valleys offered fertile land to be reclaimed, but also, and often probably more so, because here lay the interregional traffic routes. Roads often lay in the valleys, as they generally were much easier to traverse than the hills or mountains, where many more meters of altitude had to be conquered. And, of course, waterways were also sited in the valleys.36

For the terre nuove, it is largely known from the foundation documents where the settlers came from. It appears that most of the communities and villages that were re-settled in the new towns lay on higher locations at short distances from the terr. The old villages were often sited on hills, whereas the new towns were built in the valleys. For instance, at least five of the six villages that were re-settled in San Giovanni Valdarno, were hilltop villages, while the new town was built on the valley floor, possibly on the location of the sixth village.37 (see fig.3.5) This situation is more or less similar to that of the other terre nuove.38

31 Beresford 1967, pp.135-140. This was still explicitly advised in a 19th-century Dutch treatise on the building of dykes and the organisation of polders, which suggests that houses and other buildings should be built on the least fertile parts of the polder. (Andries Vierlingh: Trectaat van Dijkagie, eds. Hullu & Verhoeven 1920, p.284)
32 Regarding Wales, see par.1.7, and regarding the terre nuove, par.3.8. In the literature on urban creation in the period under consideration, the aspect of previous settlement is often either strongly exaggerated, which means that purposeful interventions are largely veiled, or are passed over entirely, which means that the newness is over emphasized (this is often the case, for instance, with the bastides).
33 See pars.1.7, 1.7.4, 1.7.9-1.7.11, 2.10.1, 3.8.1-3.8.3, 3.8.6.
34 See pars.1.7, 1.7.5-1.7.8, 2.3.1, 2.3.2.
36 In the Roman period, many roads and settlements had been built in valleys in southern and central Europe. But after the relatively quiet period of the Roman empire, particularly in the 7th to 11th century, many valley settlements were pillaged repeatedly, after which experiences they were moved to safer places in less open and better defendable locations, commonly higher up in the hills or mountains. Particularly for the region of Latium in Italy, this process is known as incastellamento. (Toubert 1973 (Latium); Barceló & Toubert 1968, passim and esp. pp.17, 287; Fischer 1992, p.103 Fields on valley floors became uncultivated again and drainage systems and roads fell into disrepair. Many valley floors became swampy and malarial terrain again, as were valleys that had not been colonised.
37 See par.3.8.2. This sixth village, which was probably called ‘Borgo di Pianalberti’, seems to have been a relatively young creation itself.
38 From the 26 communities from which Scarperia was to be put together, 8 out of the 20 I have been able to locate (up to c. 5 km. away from the new town) from toponyms in a present-day map, lay higher up in the hills, the other ones being located in the plain on locations similar to Scarperia. (1 : 25,000 map of the Appenino Toscoemiliano, Edizione Multigraphic Firenze, 1991) Concerning Firenzuola, 7 out of the 8 communities mentioned in the foundation document lay higher up in the mountains, up to c.6 km. from the new town. (1 : 100,000 map Firenze-Prato, Edizione Multigraphic Firenze, 1993) Regarding Terranuova, I have only been able to locate 4 out of the 12 communities mentioned in the foundation document, all of which were sited on hills up to about 2.5 km. away from the new town. (1 : 25,000 map Massiccio del Pratomagno, Edizione Multigraphic Firenze, 1986) From the eight settlements that were to constitute Giglio I have located seven, six of which lie higher up in the hills. (1 : 100,000 map Istituto Geografico Militare 1969, Foglio 114)
Gian Franco di Pietro described how similar settlements transplantations from hilltops to valleys also took place elsewhere in Tuscany in the 12th to 14th centuries. It is not unlikely that the earlier hilltop settlements had been connected with interregional roads through the valleys by secondary roads. As long as defence remained a more important consideration to the settlements than trade, they probably were better off located on the hilltops. It was particularly the protection offered by the mighty territorial powers of Florence and other city states that offered some level of guarantee that people could safely live on unsheltered locations in the valleys. In Tuscany the city-states could only offer such protection up to a satisfactory extent to settlements in the countryside from about the 12th to 14th centuries onward, depending on, among other things, the power of the administration and the location. It should be considered, in this context, that the areas along the interregional roads in the valleys were more closely controlled by the city-states, since the old settlements in the hills had generally been the bases of power of the old feudal lords, who were often the adversaries of the civic administrations. It is also of importance that the locations along the through-routes were generally easier to reach from the cities or from secondary strongpoints of the city-states, than were the higher locations.

As already mentioned above, the movement of settlement from high to low locations was not exclusive to Tuscany: in the high-period of town foundation the same phenomenon can be found almost anywhere in Europe where towns were created and where the landscape contained valleys that were wide enough to travel along and to live in. The specific process was not the same everywhere, but in general it can be observed that concerns of an economic nature came to prevail more and more over defensive considerations in the siting of settlements. In paragraph 5.3, which deals exclusively with settlements that were transplanted from one place to another, the phenomenon will be encountered again in various other European regions.

Not all new towns were created on low-lying, level sites, however. In chapter 2 it was seen that various bastides were built on hilltops or hillcrests. These locations were at least partly chosen for reasons of defence. The same also happened elsewhere in Europe. For instance, Carl Haase has described the odd situation in Westfalia in Germany, where relatively many new towns were founded on high-lying sites in the period of c. 1240-1290, compared to the 12th century and the earlier decades of the 13th. The towns founded in this specific period were also smaller in size and received reduced privileges. The reason was that, due to an increase in hostilities among the different territorial lords, these towns were often built for the protection of lordly territories rather than for motives of an economic nature, as had been the case with the earlier town foundations. Therefore, these towns were built on defendable sites rather than at traffic junctions, which generally meant that they were sited on higher locations.

5.2.1 Prevention of flooding

On low-lying locations, there was, of course, often a danger of flooding. In lowland areas, such as The Netherlands, towns were generally built on sites that were somewhat higher than the surrounding terrain, in order to prevent flooding. The difference in altitude may sometimes be almost invisibly small, but a difference of, say, half a metre may have been just enough to withstand a flood as a result of high rainfall or a broken dyke. On valley floors surrounded by hills or mountains, the locations chosen for new towns were generally also not at the lowest point. Often a low spur or mound was chosen, largely surrounded by lower ground. But in some cases a very low location was chosen. The reason for that was primarily that at such a site the water, in the form of a river bend, an artificial moat or a swamp, could easily offer protection from invaders.

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39 Detti, Di Pietro & Fanelli 1968, pp.33-35. Di Pietro specifically writes about Tuscany, but suggests that the principle was also common to other hilly or mountainous regions in the period of about the 12th to 14th centuries.
41 Fischer 1952, p.142.
42 See par.2.10.1.
43 Haase 1966, pp.75-76.
44 For instance, the new town of Hagestein in The Netherlands was built on a fossil riverbed that was somewhat higher than the surrounding land. (see fig.5.2) The nearby new town of Vianen had a higher ‘core’ in the dyke along the river Lek on the north side of the town, perpendicular to its main axis. The town of Aigues-Mortes in southern France was also built on a slightly higher site in the marshy estuary of the Rhône. (see fig.2.15)
45 This was the case, for instance, with Rhuddlan and Aberystwyth in Wales (figs.1.15, 1.19), the bastides of Grenade-sur-Garonne and Montaut (figs.2.22, 2.53, 2.24) and the Florentine new towns of San Giovanni, Firenzuola and Terranuova (figs.3.11, 3.32, 3.23).
46 This was the case with, among others, the bastide of Fourcès (fig.2.10) and Leoben in Austria (fig.5.4).
Sometimes, the terrain at such low-lying sites was artificially raised or surrounded by a dyke. For instance, with the building of the new town of Hagen, which was added to the older town of Braunschweig in northern Germany around 1166, the ground level was raised with sand and logs. In the small town of Goor in The Netherlands, which received urban privileges from the bishop of Utrecht in 1263, archaeological excavation has shown that the ground of the town was artificially raised somewhere around that time. Near the bed of the river Regge a small natural mound was enlarged with over 26,000 cubic metres of earth. This earth partly came from the digging of a moat around the site, but a large part of it must have come from elsewhere. It is calculated that this work must have taken about a hundred man-years. Le Landeron in Switzerland was also founded on the bottom of a valley, in a former meadow, in 1325. In order to keep the water away, a dyke was built of stone walls as a container for an area in which the ground level was raised about one metre. The stone walls also served as a foundation for the actual town wall. A very special case is the new town of Stockbridge in Hampshire, England. The small settlement was built on an artificial raised causeway. The main street and the plots on both sides of it lie on a strip of raised ground which crosses the valley of the river Test. The river was divided into a number of smaller streams that act as boundaries between the different plots, crossing underneath the main street and flowing together again after passing through the town.

In various other towns that were built on low-lying land, the ground level was raised later on in their history, as regular flooding made it difficult to live there. This was the case, for example, in Le Landeron and in ’s-Hertogenbosch in The Netherlands, where archaeological research has shown that the ground level was raised considerably some decades after the foundation of the towns. Sometimes, urban regulations were established in low-lying towns determining that individual occupants were not allowed to raise the ground surface of their plot above a certain level. In a newly laid out street in Amsterdam, this level was set by poles; but more often it was stated that the level of the plot outside the house was not to be raised above the level of the neighbouring plots.

5.3 Settlement transplantations

New settlements were, for the most part, not just created out of nothing: their initial settlers may already have been living at the site, but most settlers came from elsewhere. Quite often, new settlers moved in from specific older settlements in the region, whether willingly or not. Sometimes, however, the initial population was completely transplanted from an existing settlement elsewhere. Such settlement transplantations often had to do with considerations regarding trade and traffic routes. Inter-regional Roman roads, or rather their other routes, generally remained in use for many centuries, often even up to the present. Apart from those, many new roads were built during the period of about the 11th to 14th centuries, in order to facilitate the regional and super-regional traffic, which increased strongly due to the intensification and expansion of economic structures. Waterways were also newly exploited and improved. Almost everywhere in Europe, these new transportation networks had a significant influence on the pattern of settlement.

There were also various other reasons for settlement transplantations, as will be discussed below. But the nature of the site - or the mutation of its nature - always had a significant influence on the act of transplantation.

In chapter 1 it was described how the new town of Newborough was created in order to house the Welsh people who had previously lived in the borough of Llanfaes and the village of Cerrig-y-gwyddwl, which had lain near and, respectively, at the site of the other new town of Beaumaris. These people had to be resettled, as they were no longer allowed to live near the place where Beaumaris was built. The village

47 Rötting 2001, p.418.
50 Beresford 1967, p.176.
51 Archaeological research has shown that in Le Landeron the ground level was raised about 1.5 m., which meant that the floors of the houses also had to be raised. (Bujard & Boschung 2001, p.33) In ’s-Hertogenbosch a layer of 1.5 to 2 m. of sand and rubbish were carted in at the end of the 13th century. Houses appear to have been taken down and rebuilt on the raised level, which accounts for the fact that at least some of the timber frame walls were replaced by brick. (Janssen 1983, pp.58-59; Janssen 1990 (2), pp.161-165)
52 Meischke 1988, p.239.
53 See par.9.9.
simply had to be cleared in order to make room for the new town, whereas the borough of Llanfaes was considered an undesired economic competitor to the new town. Beaumaris was not meant for Welshmen, and therefore they were forced to move to the new town of Newborough, which lay at a distance of about 20 km. from Beaumaris. The new town of Aberystwyth also appears to have replaced earlier settlements. There it was a matter of Norman

villages and castles that were located further inland. Most settlers of the new town, however, seem to have been attracted from elsewhere. Many bastides also replaced older settlements. As with the Florentine terre nuove, the new towns were often built in the valleys, replacing older settlements that were sited on higher ground. Thus, Toulouzette replaced Nerbis, Aire-sur-l’Adour replaced St. Quitterie, Villeneuve-sur-Lot replaced Pujols, and Réalmont - unlike its name suggests sited not on, but at the foot of a mountain - replaced Gardemont. The ville-basse of Carcassonne was founded for people who had lived higher up in the old cité, which remained in existence as a fort and town for the clerical and administrative elite. A more or less similar case is (New) Salisbury in England. The old town was sited on a hilltop at Old Sarum, cramped within the fortifications of an Iron Age hillfort, together with a cathedral close and a castle. In 1219, however, the bishop decided to move his cathedral and town down the hill to a site on the bank of the navigable river Avon. The poet Henry d’Avranches recorded the reasons for the transplantation to the new site, which was actually effected between 1217 and 1227. Primarily, it was the hostility from the officers of the lord of the castle that caused the transplantation, but he also mentioned various disadvantages of the nature of the old site, ranging from being too much exposed to the wind, to the abundance of chalk, which blinded the eyes of the inhabitants. He also wrote that the old site on ‘mons maledictus’ was poorly accessible and that the new site was much easier to reach. As mentioned in the previous paragraph, this last motive was common to many settlement transplantsations in the period. Both Carcassonne and Salisbury show that the lack of room for expansion could also be an important motive for the movement from the hilltop to the plain. Innsbruck in Austria was not sited on a hill originally, but on the left bank of the river Inn. In this location, however, it was also difficult to find space to enlarge the settlement for its lord, the duke of Austria. Therefore, so it appears, Duke Berchtold III had the market settlement transplanted to the other side of the river around the year 1180.

54 See par.1.7.11.
55 Beresford 1967, p.41; Griffiths 1983, pp.69-70. See par.1.7.3.
56 Beresford 1967, pp.187-188; Lavedan & Hugueney 1974, p.83; Dubourg 1997, pp.87-89. Further examples are Montédur and Roquefixade, which kept being called by their old names. (Lauret, Malebranche & Séraphin 1988, pp.23-34)
57 Mot 1963; Lavedan & Hugueney 1974, p.81.
58 Beresford 1967, pp.188-189; Ancient and Historical Monuments in the City of Salisbury 1980, p.XXXII.
59 Fischer 1952, p.112. A similar case is Neuburg. When the original settlement outgrew its space in the 12th century, it was partly transplanted to an island in the Donau, and
Herbert Fischer published an interesting study on the phenomenon of historical settlement transplantations, mainly regarding the area of Austria and surrounding regions. From this study it appears that quite a few settlements there were moved from one place to the other in the 12th to 14th centuries. As elsewhere, these transplantations were mostly in a downward direction: settlements were often moved from hilltops and mountainsides down to the valleys and plains, in order to find level building land and transport routes there.\(^60\)

Particularly, the presence of better transport routes, or rather the closer proximity to them, seems to have been a prime consideration for the transplantation of settlements. Examples of this are the towns of Bruck an der Mur and Leoben in Austria, which were transplanted under the rule of the great town founder Přemysl Ottokar II (duke of Austria and margrave of Moravia 1251-1278, king of Bohemia 1253-1278). Around 1262, the village of Bruck an der Mur was moved down to the river Mur, where it was sited at a bridgeable point and made into a town. Leoben, which lies only about 10 km. to the west, had been a market settlement next to a castle on a hill since about the 9th century. In 1268, it was relocated at the bridge-head on the river, about 400 m. to the north of the old site. In this last case, the new site had an additional attractive aspect because a loop in the river offered easy and cheap defence to the town.\(^61\) (fig. 5.4)

A decade earlier, in 1257, Přemysl Ottokar II had already transplanted the small market towns of Kunovic and Velehrad in his margravate of Moravia, on the Hungarian border. They had been on both sides of the river Morava and were moved to an island in the river, where they were much easier to defend.

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\(^61\) Fischer 1952, pp.118-119, 136. Possibly, the immediate occasion for the transplantation had been a fire in the old town, but a chronicle mentions that Leoben was relocated ‘because of a mountain that blocked her towards the south, the city could not be fortified’. ‘propter montem qui versus meridiem eam tangebat, civilatum ex quo muniri non poterat’, Egli 1652 (Bd.2), p.143) The relatively flat site in the river bend was easy to fortify by walls and ditches, since two sides were directly protected by the river.

Similar cases are the oppidum Markstatt in present-day Slovenia, which was transferred to an island in the river Krka by Rudolf IV in 1365, after whom it was called Rudolfsworth (presently Novo Mesto; Fischer 1952, p.124), and Radkersburg in Austria, which was transplanted to an island in the Mur from the suburb of the duke’s castle. (Fischer 1952, p.135).
According to a surviving document, the new fortified town was created ‘for the protection of our country’. The new town was called Nový Veligrad (presently Uherské Hradiště). Another town transplantation for which Fischer has found a documented motivation was that of Bösig (Bezděz) in Bohemia. In 1337, this town was moved by its lord ‘from certain experience and many legitimate reasons’. The old location, next to a castle, was ‘neither appropriate nor apt’. Therefore, the town was transplanted to another site, in the woods on the bank of a stream, ‘due to improvement of the conditions of this town and its inhabitants’. The new town was called Weißenau, although its founder wanted it to bear the name Neu-Bösig. Apparently, this transplantation was arranged in order to find a more suitable site to provide a comfortable life for the inhabitants.

Similar cases can be found elsewhere. At San Miniat al Tedesco in Tuscany, for instance, the inhabitants wanted to move from the site on the hillcrest down to the plain below, in order ‘[…] to profit more from the convenience of the plain and the water […]’, according to the chronicler Giovanni Villani. Apparently, the transfer was not effectively realised, or was only to a very small extent, since the core of the settlement has remained up on the hillcrest. But in the 19th and particularly the 20th centuries, the settlement in the plain developed quickly, and presently the lower town, called San Miniat Basso, probably has more inhabitants and economic activity than the old town does. It is clearly visible here that the transfer from high- to low-lying sites was not a phenomenon exclusive to the 12th to 14th centuries: it continued up to the present day. The building of new, wider and better roads, canals and, eventually, railways from, say, the 18th century on, encouraged development in the valleys and plains. Turnpikes, docks and stations were often built right underneath the towns that lay higher up the hills, after which the centre of economic activity and settlement often gradually moved down from the upper town. This process can be observed at many places where old settlements were sited on hilltops or mountainsides. The settlement transplantations in the period under consideration formed an early and important stage in this process.

Sometimes the location in the plain was expressed in the name of the new towns, as in Castellón de la Plana in Castille and Le Plan and Plagne in southwest France. Strange enough, however, town names with mont, berg or a similar reference to the height of the location, are far more common. This is peculiar since locations in valleys and plains are more frequent. Apparently, such locations were less compulsive in the toponymy.

In fact, in some cases one can even find towns that lie in valleys or on flat sites, with names that suggest the opposite, such as Montevarchi (Tuscany), Montaut (southwestern France) or Hardenberg (The Netherlands). The first of these, however, was named after the earlier settlement that actually lay on a nearby hill. The same is possibly true for Montaut, whereas Hardenberg was named after the slight elevation on which it was built in an otherwise rather flat landscape.

There were also towns that were moved as a result of a natural disaster or because of particular political circumstances. The town of Friesach in Austria, for example, was moved from one bank of the river Metnitz to the other in 1121 because the old town was destroyed in order to punish the inhabitants for an insurrection against their lord. Fires and avalanches or landslides could also provide a reason to move a settlement to another place. Ljubelj in Slovenia, for instance, was destroyed by an avalanche some years before 1320, after which it was replaced by a novum oppidum on a site nearby.
In cases of the devastation of settlements by flood or enemy attack, they would, contrary to the general trend, quite often be transferred to higher locations in order to find better protection there.\textsuperscript{70} In Austria this happened to the towns Fürstenfeld, Markt Enn and Neulengbach.\textsuperscript{71} Winchelsea in southeast England is a well-studied example of a town that was transferred in an upward direction because of an increase in floods from the sea. (fig. 7.1) The port town was transplanted by King Edward I in the years around 1292, from the estuary of the river Brede to a nearby hilltop with a harbour at its foot.\textsuperscript{72} In the north of England there even was a triple attempt at town foundation, of a town which was transplanted twice because of flooding by the sea. Wavermouth was founded in 1300 as a port town for the victualling of Edward I’s fleet during his Scottish expeditions. Already in the next year the foundation was aborted and retried at Skinburgh; but, after this attempt was also largely washed away, Newton Arlosh was founded on higher ground in 1305. This re-foundation eventually resulted in a quiet village, and not in the flourishing port town that the founder of the three towns, the Cistercian abbey of Holm Cultram, probably had hoped for.\textsuperscript{73}

Finally, it must be remarked that the transplantation of a settlement from one site to the other usually also involved a shift in status. In the sense of altitude the settlements may usually have gone down, but in the sense of status it commonly was just the other way around: mostly it meant a promotion in size, in privileges and often also, indirectly, in independence from the lord of the town. For instance, many towns were moved away from the castle in whose shadow they were previously located, so that they were able to assume a higher level of independence, with more independent facilities, such as a church or chapel, a court and, not least, their own defences.\textsuperscript{74}

\textsuperscript{70} In this sense they were much alike the many settlements in the formerly Roman parts of Europe that were incastellated in the period of about the 7th to 11th centuries. (Toubert 1973 (Latium); Barceló & Toubert 1998, esp. pp.17, 287; Fischer 1952, p.103)

\textsuperscript{71} Fischer 1952, pp.115, 117, 126, 128-9.

\textsuperscript{72} Homan 1949; Beresford 1967, pp.14-28. In 1280, King Edward called upon his steward Ralph de Sandwyco, and commissioned him to “[...] extend and buy or obtain by exchange certain lands [...] which are suitable for the new town of Winchelsea which is to be built on a hill called Yhamme” (Lilley 2005, p.225)

In a certain sense, the transfer of Winchelsea echoed what had earlier happened to Romney, Hythe and Hastings, on the same slowly eroding shore, when they were transplanted higher up to New Romney, New Hythe and New Hastings.

\textsuperscript{73} Beresford 1967, pp.415-416. The town of Kenfig in Wales had to be moved further inland because it was encroached by sand, rather than water. The town was first founded in the early 12th century, and was transferred in the late 15th century, by which time life had become very difficult because of the invading sand. (Soulsby 1983, pp.149-151)

\textsuperscript{74} Fischer 1952, p.143. There are exceptions, however: some towns were actually transferred to sites next to existing forts or castles, usually on higher locations. (see Fischer 1952, pp.103-133)