Reducing household energy consumption is one of the top issues in contemporary discussions on sustainable consumption. This chapter concerns one way in which the consumption of purchased energy for domestic heating can be reduced: having a solar thermal system added to one’s house (Henning 2007). However, the fact that one of the components – the solar collector – is usually situated on the roof or the façade of a building is a recurrent impediment to such installations. In certain contexts, these attributes may blend into the building, while in others they may be perceived as problematic (Henning 2000). The latter may be the case particularly when the appearance of the building is of major importance, as with houses deemed worthy of preservation for coming generations.

This chapter draws upon a study carried out in the town of Visby in October 2010. Visby is a walled Hanseatic town and a World Heritage site on the island of Gotland, Sweden. This well-preserved town, with streets and buildings dating back to medieval times, is still very much alive with residents, shops, restaurants and workplaces. The research focused on attempts by prospective consumers to purchase solar thermal systems and have them installed in and on their old houses. It links some of the constraints of these particular consumption decisions to the varying, but culture-specific, meaning of solar collectors and heritage dwellings. A basic purpose was to investigate the congruity of two Swedish national interests; the one being preservation...
of historic buildings, the other a shift towards more energy-efficient heating systems and renewable energies. The discussion is pursued in the vein of those anthropological studies of consumption, which links consumption to space, home and the relationship between persons and things more generally (e.g. Buchli 2005:210, Miller 1995, 2005:237).

After some background information concerning the town of Visby and solar thermal systems in Sweden, the following section describes how residents tend to perceive one another, and how they tend to vary in the way they strike a balance between preservation and alteration of the old houses. The second section deals with the ability of individual energy consumers to choose heating systems. It begins with a general description of energy consumption and supply in historic Visby, and continues with a description of householder motives for buying a solar heating system, as well as motives which tend to be ascribed to them. In the third section, a focus on solar collectors is used to discuss how perceptions of space may either restrict or allow for consumption. Finally, some general conclusions and summaries are given concerning the link between artefacts, consumption and space, and the way this is illustrated by the Visby case study.

**House touring and ethnographic interviewing**

This social anthropological study had an emphasis on ethnographic interviewing (Bernard 2002:204f). Interviews were conducted with twelve individuals, five of whom were interviewed in their professional roles as employees of the local energy company, energy adviser, architect and antiquarian. Seven men and women were interviewed in their role as home owners. Each of these households had shown an interest in having a solar thermal system installed in their house. A majority of all interviewees had been born in Visby and/or had lived in the walled town for most of their lives. Several home owners ran businesses of their own.

One man was interviewed by telephone on two occasions. The others were visited in their homes or at their places of work. The ambition was to meet both the man and the woman in each of the resident households, although this was achieved in only two cases. After interviews of between one and two hours, a tour of the house took place. Photography was used to help informants to tell their stories of how they had made their house a convenient and aesthetic home (Henning 2007; Pink 2004). Photography was also used as a way of becoming more observant concerning buildings, ‘street views’, ‘roof landscapes’, and intended sites for solar collectors.
Islanders in a walled town

Of a population of 57,000 on the entire island of Gotland, 23,000 live in the Visby area. Of these, almost 3,000 live within the town walls. On one side of the wall, there is the sea. The other side of the town climbs a hill, allowing for good views over house roofs and church ruins (Figure 1). During ten summer weeks, Gotland is invaded by several hundred thousand tourists and summer residents. Farming and tourism are important sources of income for the population. Despite a large public sector and a high degree of enterprising spirit, job opportunities are few. The young tend to leave for the mainland to find work or further education, sometimes only to return on their retirement. When the intramural town of Visby was added to the World Heritage List in 1995, UNESCO stated that ‘Visby is an outstanding example of a north European medieval walled trading town which preserves with remarkable completeness a townscape and assemblage of high-quality ancient buildings that illustrate graphically the form and function of this type of significant human settlement’ (whc.unesco.org/en/list).

Solar thermal systems in Sweden

A solar thermal system for the single-family house in Sweden consists of a solar collector, a heat store in the form of an insulated tank filled with water, and connecting pipes, a pump and a heat exchanger. In Sweden, small
systems produce domestic hot water from May to September. More common, however, are the larger combi-systems, which also provide hot water to the house heating system from early spring to late autumn. In order to produce up to fifty percent of the total annual heating, the size of the collector and its angle of inclination are vital, as is the size and construction of hot water stores (Lorenz 2010). The annual insolation is about ten percent more in Visby than in the rest of Southern Sweden (Broman 2007).

The ‘preservers’ and the ‘renewers’

The population of the island of Gotland is not very large, and even fewer live in Visby. Many of them know one another, or have at least heard of one another:

‘On Gotland, everybody appears in every context. A client is a deliverer next time we meet, so to speak. And a client may be a member of the municipal executive board in another context. You have two or three (different kinds of) relationships with every client. (...). Authority clients, and company clients, and local government, and politicians; They are everything .... They are clients and deliverers and are responsible for decisions and the like. The whole way. So, all this often becomes a circle, so to speak.’ (Man from the energy company.)

Considering the fact that the population in intramural Visby amounts to merely three thousand people, and that many of them have lived and worked there for decades, sometimes since childhood, social networks are bound to be tight and inter-connected. Still, the interviewees repeatedly explained to me that there are two camps in Visby, with the ‘Preservers’ on one side and the ‘Renewers’ on the other.

Two camps?

Most of the householders who were interviewed saw the population this way, as clearly split into two kinds of people with diametrically opposing views. One side was said to demand complete conservation of the town, while the other would demand change, or ‘development’, as some would put it. At first sight, this certainly seemed to be true. Those who were set on preserving old Visby expressed their regret that owners of historic homes tended to tear out everything to make the interior bigger and more modern, often leaving only a shell of original outer walls. At the same time, home owners would angrily tell me how they were not allowed to do anything, that every single thing was forbidden!
The interview material strongly indicates that those who are placed closest to the idea of ‘preserver’ are the most likely to be the target for criticism. According to the informants, these people are either inconsistent or say no to everything because it is the easiest way out. They could be depicted as being bureaucratic and having a certain mentality, a limited view of things. They would even be described as the work of the devil and, according to some politicians, highly dangerous in their prevention of ‘development’.

Ideas of who these preservers are differ somewhat. Some would say that they work for the local authority, while others would point out the museum or the county administrative board. Some would mention politicians or decision-makers more generally. Preservers could be described as mainlanders (‘fastlänningar’), and assumed to live outside the walls themselves. Someone perceived the split as existing between the local authority, who want change, and the county administrative board, who want to preserve. Almost in line with this statement are the descriptions of disagreements between local politicians and larger companies on the one hand, and civil servants with responsibilities regarding the World Heritage on the other. By placing these varying opinions of so called ‘preservers’ together, we do not produce a clear category of real people. What we do get is a general idea of an on-going discourse.

Balancing change and preservation in a town of strong historic value, where people still live and work, is obviously an extremely difficult task. The many angry or frustrated comments clearly point towards strong disagreements between individuals or groups with varying views on how such a balance should be achieved. The differences seem to be much more intricate and complex than some would claim, however. Titles like ‘preservers’ or ‘renewers’ were almost always applied to others or to the others’ perception of themselves. Not one of the interviewees considered themselves to be solely pro change or solely pro preservation. They belonged to a more balanced ‘third kind’, as someone put it: ‘Because there are people like me and my wife as well. And we are on both sides.’

**Balancing change and preservation**

Everyone, regardless of profession and background, seems to have an interest in the history of the town and its houses, as well as in how this built environment may be altered. They definitely differ in the degree to which they accept change, however. Another obvious difference lies in the kind of alteration they promote or are willing to accept. The wide variations in how
change and preservation are balanced are certainly linked to professional training and practice. But they may also be linked to the history and construction of each specific house, as well as to current ideas of an aesthetic and convenient home.

I was told how something new had begun when the biggest employer in Visby had started to use the media as an additional way to put pressure on politicians and the local building committee. Some of the interviewees told me that the company management was not merely trying to take advantage of the positive image of Visby as a medieval town, but that they actually had a genuine interest in the town and its old houses. Still, this is a big expansive company with needs of its own. Gardens have been turned into parking lots, new buildings have been erected, radical interior changes have been made, and buildings of varying ages have been connected by a footbridge or a two-storey underground space. I was told that some leading politicians saw such changes as something very positive and entirely necessary. One of them had even declared explicitly that he would not allow the World Heritage status to prevent ‘development’.

Another difference, which seems to have occurred during the last decade, was the way home owners had begun to treat their houses.

‘When you buy a house, you want to remodel it. A lot! It is not enough to buy a house to live in, but you buy a house as a starting-point for an idea you have of how you want to live. Which means that... First of all, it has become much more expensive in Visby. So, those who buy houses often have a lot of money. And, after the investment they realise their dream. And then, they invest a lot of money in remodelling the interior. So, most of the time they tear out everything! And sort of start anew, from the inside, leaving only an empty shell.’ (Researcher: ‘And it was not like this before?’) Building antiquarian: ‘No, it was not like that before. This is something new.’

Still, these changes were understandable, I was told. The houses had to be adapted for the life people live today. Furthermore, the unique wooden houses from the eighteenth century are very small, the antiquarian told me, and so one could understand that someone who has paid a lot of money wants to do something with such a house. Still, the radical changes were also considered somewhat unfortunate. Together with the torn-out material, knowledge about how people used to organise their homes would disappear. ‘It is a difficult balance’, he said. ‘It really is.’
According to the energy adviser, many of those who decide to make their houses bigger, as well as replacing their old heating systems, have been summer guests or islanders who have been working on the mainland and who had now decided to move back for good. Even though most of the households who were interviewed in this study are not fully representative of these descriptions, they showed similar tendencies. These home owners were kind enough to show their homes, or parts of their homes. The interiors of these houses were not altered completely. Still, there were always changes, some more radical than others. Walls may have been moved or taken down, a hallway may have been constructed between two houses, or new windows may have been put in to create more light or a better view, etc.

Such changes do not contradict the fact that these home owners very obviously care about their houses. They seemed knowledgeable about the history of the house, and also used different ways of illustrating its age. Some had drawings on the wall, depicting their house or previously empty site at an earlier time. Others had, for instance, removed the wallpaper and insulation to reveal a characteristic old wooden wall, or decorated one of the rooms in nineteenth-century style. One person had lovingly saved a worn threshold leading into the previous kitchen. Furthermore, some of them had put in quite a lot of effort to restore and maintain their property. One house had even been rescued in a situation when it was in a particularly bad state of repair, parts of it having settled nearly half a metre.

‘I believe,’ one man said, ‘that when you grow up in a place like this, and have always lived here... , particularly when you have been to the mainland and seen these awful medium-sized towns. How disgusting it can be. So, I care very much about this town! At the same time, my opinion is that each generation should be allowed to make its imprint. And put its signature, so to speak, on the work of art.’

**Heating options**

The heating of the walled town seems to follow a pattern which is remarkably similar to any other densely populated site in Sweden. The district heating is mainly based on biofuel, and the pipelines are extended where this is considered profitable enough. In the event of hesitation or delay in this, people who live in the area (or street, in this case) will have started to drill for ground heat pumps or to install pellet boilers or air-to-air heat pumps, thereby withdrawing the clientele base for district heating (Henning and Lorenz 2005).
There are two aspects which differ somewhat, though. One is an increased difficulty in being connected to district heating, in some parts of the town more than others. According to the energy company, it is three times as expensive to lay district heating within the walls, as compared to outside. This is mainly due to the manual work involved in putting the paving stones back in place when the street has been dug up (for the pipelines) and refilled. Since large home owners, institutions and business premises have been prioritised, it has been easier for others who live close-by to connect to district heating. A couple of the town-dwellers I spoke to were of the opinion that an important reason why the energy company had decided not to extend the pipelines to their street was because it was ‘one-sided’. For instance, there may be a huge church ruin on one side and also a park, leaving only a small line of little houses on the other side of the street; too few and too small for district heating to be considered profitable.

The other aspect which is characteristic of intramural Visby is the difficulty of being granted a building permit for solar heating. This difficulty, or even a belief that solar collectors were forbidden within the walls, seemed to be widespread among the population. At the same time, rumours reached me that several ‘illegal’ solar collectors were hidden in the town (although few seemed to know where). And on several occasions, my interviewees would assure me that there have been quite a few applications for building permits. When I questioned this (I had only found three documented cases in the last ten years), they would become more vague and uncertain. According to the energy adviser, most of those who get in contact to learn about their options regarding solar heating choose not to take the risk of paying an expensive fee for a building permit application.

**Motives for buying solar heating (and experiences from having used it)**

In one of the households, the man had written to the local authorities expressing his wish to purchase and install a solar thermal system. He had received a written reply signed by the town architect. A second household had used solar heating for parts of their energy consumption for almost seventeen years. They had never asked for a building permit. Three households had all requested building permits for installing a solar thermal system in their houses. Of these, one had been granted a permit (Figure 2), and another had withdrawn the application after a while (see quotation further down). The third household had had the application turned down. They had appealed against this decision, first to the county administrative board, and then again
to the Swedish administrative court of appeal, where the case still lies (when last checked).

Figure 2. The small but legal solar collector seen from the only spot where it is visible

Two women who took part in the interviews were both interested in a solar thermal system because of its non-polluting character. The men varied somewhat in their motives. One man told me that he wanted to save energy by being able to switch off the electricity and air-to-air heat pump during the summer and parts of the spring and the autumn. Another man wished to use solar heating as the main house heating, adding bio-pellet only as an auxiliary heat source. His primary motive for this was convenience. With solar heating, he would not have to attend to the pellet boiler every week of the year. A third man was primarily motivated by having such a perfect space available for a solar thermal system. There was an extension to his house, originally built as a garage. Inside this previous garage there would be plenty of room for sizable hot water stores. And the roof, which had a slight tilt towards the south, would be a perfect site for a collector. Furthermore, he told me, it would be impossible for passers-by to see the solar collector. An additional motive for some of the men was the fact that they saw solar energy as a very inexpensive form of energy:

‘A form of energy which is free of charge must be better in the long run. In principle, you have at least thirty years of free energy. The only costs are for a pump which goes on and off. So, in that way, it certainly makes sense.’ (First man)
‘I think it is quite obvious. It is the least expensive fuel you can get. God the Father has created it – if you believe in such things. Moreover, there are so many hours of sunshine here on Gotland.’ (Second man)

‘Well, the price for oil increased. And if you can get hot water for free during the summer, at least, rather than burning oil, that is of course very much better.’ (Third man)

Two of the households had actually had the opportunity to install a solar thermal system. One of them was the only household who had been granted a building permit. When this solar heating system was installed in 2008, the male householder had hoped to hide the solar collector extremely well. A drawback with this ambition, as it turned out, was that the collector had to be kept very small in order to fit the only south-facing slope of the roof which overlooked the yard and was difficult to detect from outside. He had also used a previous hot water store in order to keep the costs down. As a consequence, he was now rather dissatisfied with the performance of the system.

The other home owner was a lot more pleased with his solar thermal system. It had worked well since he installed it seventeen years earlier, heating from the middle of February, almost through to December. He regretted the fact that he could not make better use of all the hot water it produced during summer, though. In 1993, he never got to apply for that building permit. This solar collector is ten to twelve square metres, as compared to four and a half in the previous case. Still, placed on a south facing roof in a yard surrounded by buildings, it is equally hard to detect (or even harder).

Motives for turning down applications for building permits

A solar thermal system differs from other heating systems in that one of its components – the collector – is preferably mounted on the roof of a building, or integrated into it. It is only this component, and the fact that it is attached to the outside of the building, that is the reason for the building permit requirements. Thus, despite the fact that solar thermal systems may have sizable hot water stores, the way this part of the heating system may affect interior spaces in the building is never evaluated. In both formal and informal discussions, the visibility of the solar collector is the primary basis for evaluation. Ideally, it should not affect one’s impression of the town when walking along the streets or looking down on it when standing on the hill. The siting of the building is evaluated in relation to this ‘street view’ and ‘roof
landscape’, but judgements are also made of the way the collector blends into the building without changing characteristic roof materials or the shape of the roof.

Special recommendations for how the walled town should, and should not, be heated are stated in the municipal energy plan (Gotlands kommun 2010). Still, householders’ decisions to heat their houses in one way or another are normally considered a private affair, something not to be questioned by the local authorities. There seems to be only one exception where local authorities do interfere, not only in the choice of heating system, but also in how home owners are assumed to have reached their heating decision. Thus, low profitability for the home owner is frequently used as a reason for turning down, or advising against, a building application for a solar thermal system. Interestingly enough, this ascribed motive is used as basis for evaluation even when the home owners themselves use other motives for their choice of heating, such as energy efficiency, convenience, or environmental concerns.

**Consumption affected by perceptions of space**

A surprising result from the case study in the town of Visby is the fact that the two national interests – the preservation of cultural heritage, and the shift towards more renewable and energy-efficient use of energy – are neither in conflict nor in agreement. Not even when some private residents and prospective consumers tried to put solar collectors on their ancient roofs did the local authorities try to strike a balance between heritage preservation and energy efficiency. Rather, the issue tended to be treated as a matter of weighing up preservation against an assumed private gain. Consequently, disagreements among prospective consumers, architects, antiquarians and the local authorities tend to be expressed and acted upon as belonging to only one of the two national interests: the preservation of Visby as a World Heritage Site.

Still, opinions differ widely concerning the kind of alterations that could be made, the degree to which changes should be allowed within the walls, and who should be allowed to make such alterations. Home owners became frustrated when they had to ask for permission every time they wished to make a small alteration to their house. Some were particularly angry to see that politicians, who denied them this freedom to make alterations, could make huge changes themselves in Visby. One example, which infuriated some inhabitants, was the decision to move municipal offices outside the
wall, thereby reducing the number of customers for restaurants and shops by several hundred. Politicians, for their part, became equally frustrated when one of the companies in town made them choose between preservation of the town and employment for its inhabitants.

Interestingly enough, there is at the same time a high degree of consensus regarding which spaces could be altered and which spaces could not. There is, in this, also a clear priority of the ‘experience value’ over ‘documentary value’ (Robertsson 2002). Thus, everyone agrees that street-facing façades are not to be changed or modernised. Regarding the interior of the house and the enclosed gardens, there is an almost equally strong silent agreement that the authorities should not interfere with the alterations and ‘modernizations’ that people carry out (with the exception of buildings with very strong protection). These radical differences in how street-facing façades and interior space are perceived and treated are strongly backed up by their differing support in law. While changes to street-facing façades cannot be carried out without a building permit, radical indoor changes should ideally be reported (‘bygganmälan’), although they rarely are. There seems to be less agreement on whether roofs and yard-facing façades are to be considered a public or private concern. It is also within this context that we should understand a discussion on solar collectors.

**Consensus concerning conservation of public spaces**

As the exterior of a house can be observed by every person who passes by, it is always the most public part of a home. The possibilities for controlling the ways in which others perceive the house, and thereby its inhabitants, are primarily restricted by economic resources when choosing a house or by the ability to work on the façade. Consequently, people may use their houses either to draw attention to them or to avoid such attention (Waterson 1996). The latter is usually the case in Scandinavia (Henning 2000).

The project results indicate almost total consensus concerning street-facing house façades in intramural Visby. It is taken for granted that a permit is required for the alteration of a street-facing façade. The colour, material and general appearance of this part of the house is rarely called into question. This space seems to be accepted and respected by all actors as a public space which is to be preserved. Street-facing façades tend to be restored with great care and in keeping with past tradition, and it is only occasionally that someone bemoans the costly special materials which have to be used. Along the alleys and cobbled streets, many well-kept houses, often adorned with roses, can be seen. Such houses convey an impression not merely of passive acceptance
of the strict rules, but also of active engagement by many inhabitants in enhancing this most public aspect of their home.

No one would even dream of putting up a solar collector on a street-facing façade. The air-to-air heat pump is an interesting case here, though. Rather than hanging the outdoor units of the heat pumps on the house wall, they are generally placed on the ground about ten centimeters from the wall. When attached to the house in this more indirect way, they are no longer perceived as being part of the house, and no building permit is required. Air-to-air heat pumps are a good illustration of the importance given to the building, as compared to the street and other surroundings.

The air-to-air heat pump also illustrates a certain lack of coordination when it comes to planning and regulating the energy supply in intramural Visby. The local energy plan advised against air-to-air heat pumps due to the risks of noise disturbance in this densely populated town (Gotlands kommun 2010:14). However, since the choice and purchase of a heating system is considered a private affair, it has still become a popular heating alternative. I was told that, now and then, neighbours complain about noise to the local environmental health board, just as the energy plan predicted. Another problem which may occur with heat pumps is that they stick out too much into the street. In this case, it is a matter for a third authority, this time the local technical board.

Consensus concerning alterations to private spaces

As never before, people in Scandinavia are taking an interest in making their houses into homes. Although most people no longer spend time on making clothes or jam, they are spending more and more time, money and energy on decorating their homes. They do not only renovate their homes or rearrange their furniture when they move or when things get worn out; they do it for the sake of renewal in itself (Garvey 2001; Gullestad 1992). Or rather, they do it in order to express values, lifestyle, identity and social standing (Junkala 1998; Miller 1992). And, to quote Gullestad (1992:82), they do it to ‘express the family members’ joint interests and emotional closeness, to themselves and to the rest of the world’.

The research project took as its starting point a curiosity about how people manage to create a personal home out of an eighteenth or nineteenth century house. I imagined that such an old house would severely limit their freedom of action. However, it turned out that there was not as much difference as I had expected between the treatment of the interiors of these houses and
those of modern houses (Henning 2008a). Although we live in a time with an extreme interest in refurbishing and redecorating homes, and despite the fact that Visby has been appointed a World Heritage Site, few seem to see this contradiction as a problem. As a consequence, the purchase and installation of new indoor heating components, such as hot water stores, is never an issue for debate.

In the Mediterranean area, windows, doors, balconies or open yards are often used as adjustable links between the outside and the inside, between the public and the private (Birdwell-Pheasant and Lawrence-Zúñiga 1999; James and Kalisperis 1999). This is not usually the case in Scandinavia, where we tend to find a sharper line between private and public space. Normally, this divide goes between outdoor and indoor activities (Gullestad 1992; Sjögren 1993). However, Scandinavians also seem to be careful not to trespass on the private sphere of a garden (Björklund 1983, Sjögren 1993). We can see this happening in Visby, where some of the perceived privacy of indoor space tends to spill over to the small enclosed gardens, of which there are quite a few in Visby. Furthermore, the perception of privacy often also seems to include those façades that face the yard or garden.

As a consequence, and as indicated by the interviews, it would probably be considered unproblematic to have a solar collector placed on the ground in one of these enclosed gardens, or on the wall of a yard-facing façade. The collector would be sited in a space perceived as private, and would hardly be visible to the general public. A ground-based collector, in particular, may not even require a building permit since it is not attached to the house. However, in Visby, as in the rest of Sweden, the common location for solar collectors is neither the ground nor a wall, but the roof of the building. This fact has decisive effects on the opportunities for the inhabitants of Visby to buy and install solar heating in their homes.

**Disagreement due to overlapping space**

'(only) From down there it would be possible to see it (the solar collector), from a distance of twenty metres at that house there. And then on this street, it would be possible to see it from a distance of five metres. And that was not acceptable, they (the visiting group of inspectors) said. Then I thought, I don’t give a damn anymore!' (Angry utterance by home owner who eventually withdrew his building permit application, see Figure 3.)
One way of interpreting the varying ideas of the degree to which the solar collectors should be visible or invisible, is to see the roof as two things. For the home owner, the roof is first and foremost a part of his or her house. Primarily, it is private property. From a building antiquarian perspective, however, all roofs are primarily public. From this perspective, each roof is a piece of a bigger picture – a ‘street view’ or a ‘roof landscape’ (Figure 1) – and as such it is a very visible illustration of our heritage. Recent landscape theories can be one way of understanding the in-built conflict in this. Thomas (2001) says, for instance, that the reason why certain conflicts will not easily be resolved through mutual understanding is that different worlds are occupying, or at least overlapping, the same physical space. The roof in the quotation above is both a private and a public space. A solar collector could easily have been fitted in the former, but with a lot more difficulty in the latter.

Concluding remark on consumption and space
The owners of old Visby houses had a number of different motives for wanting to buy a solar heating system, such as a desire for further convenience, or the sheer joy of having such a perfect site available for a solar collector. However, most of their motives involved a desire to save energy or to acquire a non-polluting heating system. Consequently, these motives were perfectly congruent with the Swedish national interest to achieve a shift
towards renewable energies and more energy-efficient heating systems. Still, when applications for building permits were considered, energy consumption was never an issue. Rather, another Governmental interest, the preservation of heritage buildings, was weighed against an assumed desire (among the home owners) for private gain. The extreme difficulty in obtaining building permission for erecting a solar collector certainly constrained the consumption of these artefacts, as well as the kind of energy carrier it could have provided. Still, residents varied in the degree to which they let themselves be restrained by this. One household appealed against the decision, while others simply did not apply for permission and put up the collectors anyway.

To a large degree, the physical properties of renewable energy facilities affect their location which, in turn, has an impact on what culture-specific meanings are given to them (Henning 2005; Miller 1992). Conflicts surrounding the plans for a large solar thermal plant may, for instance, have more in common with projected wind-power plants than with other solar heating installations, since they will both become part of a certain landscape (Henning 2008b). Thus, as Douglas and Isherwood pointed out in their groundbreaking book ‘The World of Goods’ (1979), cultural meanings exist in relations between artefacts rather than in individual artefacts. Consequently, the physical properties of artefacts have very clear consequences for how and by whom the respective artefact is perceived and treated (Carsten and Hugh-Jones 1996; Henning 2005). In this chapter, we have followed a number of residents of Visby who wished to buy and install a solar thermal system in their old house. The fact that, in Sweden, small-scale solar collectors are normally inserted into house roofs (while the hot water stores are located in boiler rooms or basements) has important impacts on their ability to implement their purchasing decision.

A focus on solar collectors has been used here to discuss the options for using new products to alter heritage buildings. We have seen how it is perfectly possible to make radical changes to spaces which are considered to be private, while the same is not true of spaces that are considered to be public (unless you have the political and economic means to do so). Regulations, as well as modes of thinking among both residents and professionals who are responsible for preservation, agree on this. Therefore, one of the two main components of a solar thermal system – the hot water store – is never disputed. The other main component – the collector – is, however. One of the main reasons for disagreements concerning this artefact is the fact that it is to be placed on the roof, a space which is simultaneously a private space and part of the public roof landscape.
Acknowledgements
I wish to thank the reviewers for valuable suggestions, and my informants for sharing their experiences with me. The research was financed by the Swedish Energy Agency.

References


