

Lecture RWTH Aachen University

We are an architectural firm that, next to constructed buildings, occasionally produces booklets: reports, studies and research, both self-initiated and on request. A few years ago I gave a lecture in Amsterdam on how we operate and for this I produced this image, because it shows more or less how things are going in our firm. These are important projects; these are the people who, for us, played a major role in it. Such a project, which is a specific architectural assignment, often reveals other questions or issues on which we have an opinion we think is worth writing down. Approximately once a year, this leads to the production of something we started to call the DAAD cahier, pictured here. There, we give an answer on the question we think is relevant at that time, and perhaps should have been asked before, but wasn't. We hope that, in response to this, someone will approach us saying it is an interesting question, I was curious about the answer and you gave a good one, maybe we can do a project together. This is how our work is brought in and proceeds, how a specific architectural assignment leads to the next research, which in turn leads to the next assignment.

It all started in 2003, it was the year of the farm, with our first cahier that was supposed to deal with a sustainable agricultural shed in the Groninger Oldambt. We had certain ideas about this topic, however, the cahier was never released, for before it was finished, one of the four partners I founded DAAD with died. So we decided to dedicate our first cahier to him, and hence the original topic was laid aside. After ten years, in 2013, the topic was taken up again, for every year that ends with a three is the year of the farm in the Netherlands. In other words, the theme of the year coincided well with that of our first cahier, and we finally finished it. This first cahier dealt with a type of farm shed in Groningen, called the Oldambster farm, and its development throughout history. If you look at its history, you can observe that from 1750, it basically started as a kind of very large roof under which all the farm functions were placed, so both the house and the storage of the grain. This is characteristic of this type of farm, as are the holes in the façade, which are exactly as large as needed to suit the function behind it, and are placed in such a way they perfectly coincide with this function. That is, they do something with the underlying function. Consequently, it does not result in an esthetic picture, design of a facade but a picture that is purely functional. One could call it form follows function avant la lettre. In 1850, the front house gradually becomes detached from the farm and receives an own design treatment, to a large extent aided by increasing income from grain farming. It becomes symmetrical, a base and top ratio appears and instead of a front façade a roof plane arises. In the next fifty years, proceeding to 1900, a fully rectangular house volume arises that as a picture, although still underneath the same large roof, demerges itself from the shed behind. This is the farm we now all know and appreciate as a typical Oldambster farm. However, in my view it resulted, 100 years later, in 2000, in the appearance of farms with a house that is completely detached from the farm. Now, we observe two construction volumes, placed some distance away from each other, that no longer have anything in common. This is where the money earned with grain farming is spent, and the shed is solely functional. And when one, with the history of the building in mind, looks at a contemporary shed like this, it seems legitimate to argue this is much more of a typical Oldambster shed than something like this, where house and shed are completely pulled apart. We had been working on answering the question of how to build a modern/contemporary oldambster shed, and this resulted in a design report that subsequently ended up in this booklet. During the preparations of this study conducted on behalf of the province we noted that there must have been a correct ratio between farm, yard and landscape. For centuries, this trinity resulted to some kind of correct picture we still experience as pleasant to look at.

What is going wrong in our opinion is not so much that new sheds are being built, because that has always been the case in history, but that the green plan of the yard did not transform accordingly. So, although we were actually asked to think of what this new oldambster farm should look like, in fact an examination of a new architectural image, our conclusion after a survey in the area was that the architecture actually did not matter that much, as long as the yard plantings were properly placed around it. This is illustrated in this picture. Here, the new building has become a part of an overarching green plan. Indeed, this is where we aimed at in our design solution. A second type of shed that exists in the area, so not the masonry sheds we saw previously, is an open roof shed where the farmer efficiently stores his different materials in different seasons. One could say this

is also an example of a form follows function shed, since the façades image is determined by the storage of the materials.

With this notion kept in mind, in 2001 we made a draft for a shed, consisting of a fairly simple main volume, simple enough to be bought from a catalogue, surrounded by a framework that can accommodate different elements that are of importance for a particular farm. So what is visible in the end is not the shed itself, since it is right in the middle, but rather the storage of a variety of materials in the edges of the building. This would result, after completion of a design under this approach, in a building that has the size of the full yard and that consist of edges that are alternately plantings, building and storage. In our view, we made an attempt to find a new equilibrium between the architecture of the yard and the plantings.

At that time, we were working on an information center for an organic farmer in Orvelte, which was called the Wenning. This building won a prize awarded by the commission of architectural review in Drenthe in 2001. So, although we did build once on behalf of a farmer, our studies often remained theoretically. Until in 2013, two different buildings on which we sketched, designed and talked for a very long time were finally realized. One was the sheepfold in Balloo, a building that burnt down/went up in flames not long before, and the other one was a dairy farm for a woman farmer in Diepeveen, situated on the banks of the river Ijssel, built in the flood plains on a self-constructed mound. On the occasion of the two completed works in 2013, again a year of the farm, we decided to revise the cahier we did not manage to finish ten years earlier in 2003.

Thus, in September 2013 we succeeded in releasing our eighth DAAD cahier, which concerns the innovative farmer. By the innovative farmer we mean the following: in farming, two developments are to be observed at the moment. One is the large-scale, mono functional, up scaling farmer; with an ever growing farm that produces only one product and wishes to operate on the global market and attempts to adapt his management accordingly. And the other one is a small farm that often relies on the urban area and attempts to have a wide variety of functions on its yard to support the company instead of trying to make one function really big. In this case, it concerns a woman farmer who keeps her cows as both dairy and beef cattle and receives thirty percent of her income from maintenance of the landscape for the purpose of water storage, who has a building with an educational function on her farm, which enables to receive school groups at the farm for educational purposes, whose farm is part of the estate and the hiking trail that traverses it, providing a resting spot and even a tea house for day trippers. For her, the farm is in the combination of these functions. This type of farmer, the one that combines different functions on his yard, is pretty successful in the Netherlands at the moment, and the good thing about both the first type, the scale-increasing farmer, and the second type, the multifunctional farmer is that they are both in need of an architect to design their buildings and their landscape.

The first makes buildings that are that big they simply cannot be placed in the landscape without precaution, as might have been the case in earlier times, when the buildings were much smaller and when perhaps it was not as severe when something was placed outside the boundaries of the yard. Nowadays, however, it is necessary to make a whole new design on a landscape level to be able to place these mega-farms.

The second type, the multifunctional farmer, also needs proper designing, for he often does not know whether the farm will have the same set of activities in the near future. It is constantly changing and therefore, a highly flexible building is needed, a building that remains up to date and where different functions can be placed. On this theme we performed a couple of projects and that was the reason we decided to publish it in our cahier.

This slide is about spatial quality. One can say spatial quality is a concept that lost some of its meaning, at least in the Netherlands. For a long time, it was only of interest to the spatial designers. Hence, only spatial designers were interested in making spatial quality, an interest that did not seem to be shared by anyone else. Nevertheless, commissions of architectural review were still set up to guarantee this spatial quality. The province of Overijssel prepared a document to preserve the spatial quality in their province, and they came up with a definition of spatial quality that involves more than just the image. They state that 'spatial quality is the sum of future values, utility values and experience values. It does not only concern the value the areas and objects have at this very moment, but also the potential to develop value. This value covers individuality, identity, familiarity, utility and continuity'. Therefore, spatial quality can actually be obtained as some sort of by-product of a business/farm that is focused on the future and where all kind of potential developments find a place. If done well,

spatial quality will be the outcome. As a result, pursuing this spatial quality becomes important not only to the architects, but to the farmers as well, because it is in their own interest to do so, not just something a commission of architectural review demands.

In the Netherlands, the major part of the buildings is still built without an architect. If the hypothesis I expressed earlier is right, involvement of an architect will become of increasing significance in the future, however, so far it has turned out it is still very well possible to build without an architect. This means placement of a product out of a catalogue, next to an existing building or on its own. Often, this goes wrong on the landscape level, when the building breaks through the yard plantings; sometimes the new building is carefully hidden and disturbs no one. One could say it is a kind of architecture which in the best case does not really bother anyone, but will not generate much enthusiasm either. In the rare case advice from an architect was sought, one might wonder it was such a good idea after all, if that architect mainly focuses on the architecture of the building, the materials he uses and the image it yields.

This is one of the ten nominated projects of a competition in which I was involved as part of the jury. When we visited the farm and I asked the farmer why on earth this silly roof was created, he shrugged and answered: 'this is what the architect wanted'. The farmer had no idea why the roof had this peculiar shape, although he paid for its design, and this is probably because he thinks that when he has his shed designed by an architect, it will survive the commission of architectural review and can be built without much delay. But this building is a few hundred meters long and is placed open and exposed in the landscape. In my opinion, a landscape architect rather than an architect should have been consulted in this case, to find a proper place for the building on a new yard. Unfortunately, this did not happen so in this case, a lot of money is spent on architecture, while nobody can actually enjoy it for it is hard to reach the building that is placed on the farmer's property. In fact it is more likely being seen at a four or five hundred meters distance, and then it is just it unpleasant to look, placed open and exposed like that. Again, consulting an architect does not necessarily lead to success.

Besides doing projects with farmers once in a while, we also attempt to develop a method to make consultation of an architect easily accessible for farmers. In this, we try to provide advice on the issues that, in my view, matter most. In my perception, nine times out of ten it not the architecture of the building that matters most, but the unity of/connection between building, yard and landscape. Funny thing is that when you ask a farmer who wants to expand his business, he will almost always tell he will do it between the boundaries of the yard, but when you talk a little longer, he will hesitatingly admit the enlargement will be this big that it will almost certainly cross the yard plantings. Once the farmer admitted this, he will suggest enlarging the current yard, which will lead to an even bigger project, especially when he has the courage to think of the next ten, fifteen years, and maybe it even becomes this big, it would be wiser to build on a second yard in a different place. Out of fear that nothing is allowed and that the government will restrict him where possible, the farmer will always present his building specification smaller than it actually is. We state that, whether you choose one, two or three, so, on the yard, adjacent to the yard, or nearby the yard, it is all possible, but one has to think thoroughly about how to reintegrate the new buildings in the green plan.

This is an example of a large expansion that is built on the yard, which fits nicely with the yards tree structure. And here, even in the winter season when the trees are bare and oddly shaped, the new farm is carefully placed behind it and joins perfectly in the world of the existing farm. This is a relatively low farm, it concerns a dairy farm that is only keeping cows and therefore, the ridge does not have to be that high. In contrast, potato farmers, onion farmers, in other words the vegetable growers, need a totally different shed size, based on the maximum number of cubic crates that can be piled up using a forklift. However, this often means that the gutters are placed approximately five meters from the ground and the ridge at twelve meters, which makes it difficult to properly integrate it into the existing farmyard. Then, when you enlarge it, as happens here, this results in a catalogue derived product like this that is made for storage of cubic crates, which will, if one is not careful, look hard and bare in the landscape. Here the whole landscape plan is still to be made. However, it is unlikely to happen since at the end of such a project the money runs out and the farmer has no interest in planting trees. This is the situation we often find in Groningen. Very occasionally the situation is different. In this case the farmer does not only have a feeling for architecture, but even for the relationship with the landscape

and surrounds his building with a tree lane consisting of various plants. In consultation with the landscape designers and the province of Groningen, it was done in such a way it did not result in a closed, dense edge, but rather a more open edge that reduces the size of the building without completely hiding the building from view. In this case, it is beautiful enough to allow that. This is a project in the same competition where I was part of the jury. It is an enlargement next to an existing building which is in my view incomprehensible. It concerns a type of farm that is characteristic for this area, where at first there was one roof, later on a second was built and finally a third was placed in the middle. Now what is more logical than to attach a fourth or a fifth roof directly to the monument, as is done throughout history? Instead, the new building is placed at a distance and that looks like this. Despite the color that makes the building belong to the category 'I am not there, don't pay attention to me' and despite this funny, but utterly useless element in the side façade it is altogether a very big banal, and bare enlargement that, in my view, does not have any added value with regard to the existing farm.

Lastly, the entire new yard, for which we made a design ourselves. All this took place in the northeast polder, an area in the Netherlands where in the post war period part of a sea was reclaimed in an entirely rational, almost military manner, followed by the construction of roads and parcels in the newly reclaimed land. These parcels are always three hundred by eight hundred meters and alongside the roads, farms are placed, each with a farmyard of one hundred square meters, initially in groups of four. It was 1952, the landscape was still bare, open and empty and this way at least you had a few neighbors. Later, they were placed two by two and up to 1962 they were more and more placed alone. All this yielded this landscape pattern. For the new landscape a farm was designed, and subsequently built by the SA shock-absorbing concrete. In the course of ten years, seventeen hundred farms were built. All the farms are the same, or at least they have the same modular construction, and the size of the farm is directly proportional to the surface of the farmer's land. This results in this view from the street, two hundred meters of open space, where you can overlook the fields 1600 meters far, both left and right, followed by a cluster of four farms. In other words, you are driving through the farmyards for two hundred meters, and then through four hundred meters of open landscape. From a distance, when overlooking the land, one can see the clusters of farms between the poplar lanes. This was all built between 1952 and 1962 and in 1973, the first farmer in the northeast polder enlarges his shed/farm. He built a new part because he did not have enough place (to build) on the existing farmyard. When you take a look at Google maps, you will see that new sheds are built everywhere in the northeast polder. Only when you look carefully you might find an occasional farm with small changes on the yard, or no changes at all, like here. However, ninety percent expanded long before. So when in 2005, the province of Flevoland organized a design competition for the design of a new northeast polder farm shed, this was long overdue, 32 years to be precise, because that should have happened in 1973. However, it did not and now the whole northeast polder is overbuilt with gigantic sheds, all largely exceeding the boundaries of the farmyard. One could say the competition comes way too late, since precisely on the level of architecture, there is nothing to be done. This is what we see today, or this, these kinds of sad enlargements, or even this one, situated on the road. All this in order to pile up as much crates as possible.

When we signed up for the competition we had something different in mind. We decided to put aside/ not to build on the existing farmyards, because they were ruined anyways. Instead we would go along with the up scaling of the agricultural business activity; which implies more and bigger farmlands and building areas, and more and more cubic crates for onions, potatoes and flower bulbs. Thus, we define a zone back of the yard where we will build completely new sheds. A nice thing about such a new zone is that it is located eight hundred meters from the main roads. Because of the distance, the new sheds will be experienced as small, even when they actually are really big. Furthermore, we want to make a set of rules for this particular zone, on where to build and where not, with the exception of an occasional pile of cube crates, and which parts should be a green zone. The rules are made to ensure no large, dense walls will arise; instead, there will always be open spaces, closed spaces and green spaces in this rear wall. This is this new zone, located behind (something). This slide shows what happens when a farmer extends the road at the back of the yard and builds a shed and another one a couple of years later, followed by another enlargement, and perhaps he can cooperate with his neighbors across the street, who are in need of a place to store their crops, and maybe that will be the start of a new joint agricultural business between four parcels on a much larger scale. This is the view from street, and this gives an

indication of how high the crates can be piled up in such a shed. With the construction of the larger buildings in the back, we can also get rid of the rubbish that is built before. One could tell a farmer he can build three times as big, provided that he will remove the buildings he put on his land before. So, besides the set of rules we can also attach certain conditions to the zone, in order to bring the old yard structure back to its original state. This would give rise to a new layer in the landscape, which, in our opinion, fits well into the history of this artificial, linearly arranged Dutch landscape.

Lastly, the farm in Rande we saw on the first picture. A project we had been working on from 2007, until its realization in 2013. It belongs to a foundation that owns a large estate and around 2003 decided to buy two hundred hectares of flood plains, that is, the area on the outside of the embankment, to almost double the property in size. They wanted to see if it might be possible to add a fourth building to the series of estate houses that were built here in the course of history, a farm to be precise. A farm that uses the materials, such as grass and hay, coming from the estate itself, in other words, an attempt to make the estate self-sufficient, as it was originally intended. Meanwhile, plans were made to provide the Ijssel, the river that flows between Deventer and Zwolle, with room to overflow during high tide. The water storage was planned exactly in the area where the foundation had just purchased the land. Consequently, the farm that was to be built in this particular area could be flooded as well.

The woman farmer we worked with once showed this picture to illustrate her idea of a perfect farm. This ideal farm is everything but a building. The walls are made of straw bales and the feeding fences ensure the cows cannot reach the hay. Actually, she did not need much more building than this. A practical woman who keeps her horned cows in an organic way. Meanwhile, the estate foundation, also our client, was trying to choose between building a new farm and building an estate house. That is to say, a building that is more or less embedded in the ground and where the money is made, or a building raises form the ground and where one can look out over the estate and enjoy the money that is made. Perhaps this discussion was in itself not that relevant, since the building was supposed to have both functions. It should offer the possibility of production, as well as recreation, housing and enjoyment.

In collaboration with the landscape designers involved, we found a solution in the discovery that in the past, brick factories were often built alongside the rivers, just at the border between the higher floodplain and the lower floodplain. With this (brick factory) in mind, we started the design for the project. The fourth party in the project, next to the farmer, the estate foundation and the landscape designer, was the architect. We made a wide range of models for the different farm types we considered imaginable for this place. Basically, they were meant as an exercise, to find out the direction that would suit our ideas. Complicating factor for the project was the risk of rising water, which made we had to search for a place for the important buildings, that would be safe against flooding. So we suggested to build a mound, however, when placed on the highest level, this mound would be too large an obstacle in the Ijssel. It might obstruct the flow of the river, said the Department of Public Works, the department that is, inter alia, responsible for the flow of the river waters in the Netherlands. Therefore, they asked us to move the mound a little to the back, to higher areas, and to split the 150 meter long yard into three parts, resulting in a high yard, a medium high yard and a lower yard. A lower yard, where the functions are located that are allowed to get flooded once every ten year, a medium yard that gets flooded once every century, and a high yard that is overflowed once every thousand years. In collaboration with the client and the farmer, we discussed our possibilities and attempted to find out what kind of farm this ought to be.

This is the program in squared meters, drawn to scale; we had to fit somewhere on the yard, and this program was used repeatedly to make different models, to see what kind of farm we could build. This is a very long, linear version, with the head of the building rising above the Ijssel like a castle alongside the river Loire. Or this version, a farm with a courtyard formed by the building and, on the other side, the forest we partially cut down. Or a model in which the buildings that are placed on the terraces correspond to the height of the particular terrace. Or a bayonet shaped solution consisting of two buildings, where the house is located at one end, as are the representative and educational functions, and the farm functions are located at the other end. A compact building, where all the functions are piled up, with the farm functions below and the functions that are to remain dry, for example living, located on top of it. And, lastly, one where all the functions are placed as distinct objects on the yard in a series of buildings. These models resulted from an exercise we did together with the woman farmer, de

estate owner, our client, and the landscape architect, in which all four of us used the building volumes to create our own ideal model, the farm we wished to see at this particular place. This is what the farmer had in mind, the landscape designer tried to come up with a courtyard-like farm, and the estate owner was particularly interested in an expressive front on the riverside. Afterwards we discussed the pros and cons of all the models, and this eventually led to this model, one could call it a compromise, which incorporates all the pros of the different models. Like I said, we left the farm-or-estate house discussion behind by introducing the brick factory as a new type of building. As I mentioned before, it concerns a type of building that does not exist anymore, with the exception of the ruins that are scattered here and there across this region, consisting of a brick substructure with a very light wooden roof, and that were once built exactly at the spots alongside the river where we now build as well. So this brick factory consists of a heavy, brickwork volume, with a ring oven inside, and a light wooden roof on top of it, to keep the stoker dry. These are the two elements, so the brick substructure and the roof construction on top of it, we integrated in the design of our farm. The mound is made in concrete, and at some point the Department of Public Works, the 'room-for-the-river'-project, that aims at letting the water rise above its banks and flood the floodplains, reached the stage where the construction of the mound on which we planned to build our farm, was completed. We assumed that the walls of the mound had to be built by us, until the Department of Public Works called to ask how to build these walls. Within a week, we submitted a proposal for a concrete retaining wall, which brought us into a favorable position, since if the department would build it, and even finance it for a large part, and we would make the wall heavy enough to carry the construction of the farm, that would save a lot of money.

So while we were sometimes participating on a low level for one or two years, or did not participate at all, there were moments in this process where we had to act very fast to produce things that appeared to be of importance later in the process. Here you see the construction of the mound, and the coarse planks of pinewood that were used for pouring the concrete in situ, a yellow colored concrete, resembling the bricks that are made from the river clay coming from the Ijssel. An important thing about the roof was that it had to be the same height everywhere, because the farmer had decided she wanted to use hay from her own land, which was to be distributed not by a tractor, as is usual, but by a grab crane as used in countries like Switzerland and Austria. This type of machine is able to go around a bend, like this, but they cannot go up or down, and therefore, the ridge of the roof had to be placed at one single level. And the idea was to place the objects that are essential for the different functions, located on the mound and under the roof with the continuous ridge, in such a way that they could be easily replaced by other objects and related functions in case the farmer wants to do something completely different in the future. With regard to the position of the building; since we had to move it so far from its initial place to prevent obstruction of the river, it ended up half in the woods and therefore we had to chop down lots of trees. Fortunately, we could save the felled trees for later. Because the interval between the construction of the mound and the construction of the building was long, the oak trunks had much time to dry, two years to be precise, and could subsequently be used in the construction of the building and for the lamellae. This resulted in a building that basically consists of a bright and heavy substructure, with a light roof on top of it and a rhythm of wooden pillars instead of facades, a rhythm derived from the functions located on the particular spot in the façade. Here, in the area where the cows are roaming, there is even no construction at all, only a windbreak. Sometimes it is applied horizontally as a facade for a closed part, for example the machinery storage, sometimes it is left open, and stored straw bales will form the façade, as was the case with the Groninger farm I showed on the first slide. We are working, in collaboration with the farmer, on a possible enlargement of the building, because the business already starts to outgrow the building. We think that with this project, we developed a method that will make all kind of future enlargements and alterations possible without destroying the buildings' original concept/idea. At the moment, the building is nominated in a Dutch contest called the Golden Pyramid. This contest is not about architecture; the Golden Pyramid is an award for inspiring client ship. This client built on a place where building is virtually impossible, due to both nature conservation legislation and water storage requirements. Nevertheless, his beliefs about the development of the estate made that he persisted in building the farm on this particular spot. Therefore, the government nominated him and in we hope to hear in November whether he gets through the last round of five.