

Maccreeanor Lavington in the Netherlands - Lecture by Richard Lavington given at the Design for Homes Joined-up Housing conference, November 2000

This Design for Homes CPD module should take you about half an hour to go through

A lot is talked about Holland in the context of housing. I thought it would be useful to talk through four examples of the work we are doing in Holland at the moment. I have specifically chosen these four examples because they are all for mainstream housing developers and they are all located in suburban locations, a lot of the new city periphery developments that are happening in Holland.

All these developments are being developed at densities overall of between 35 and 45 dwellings per hectare, which is in line with the sort of guidance that is contained in PPG3.

Three of the projects that I will show are built using tunnel form construction, which was very clearly explained in the animation that you saw this morning so I will not bore you with another explanation of the way things are built in Holland. But overall I think I want to concentrate more on the context within which terrace housing is used in Holland, which is within the context of a very coherent and structured view about overall strategic planning, where although there is a constant pursuance of reductions in cost and better value in terms of construction, there is also a continual emphasis on quality, design and a very long-term investment in design in terms of urban planning.

This is the first project I was going to show (1). Zaaneiland was the result of a competition we won. It was completed in 1996. It is free market housing. It is clearly – well clear to us, I suppose – inspired by the Victorian terraced house. A lot of the design work we did on this project was before we established our office in Holland. Although we spent a lot of time trying to understand Dutch construction systems and the Dutch market, it was very much influenced by the fact that both myself and my partner had studied at Bath University at that time, were living in London, were living in Victorian terraced houses.

However, our clients' view of this project was simply that it was simply a variation of a typical house type from the 1980s in Holland, which was the drive-in dwelling, named in typical Dutch directness because it was a three-storey terraced house with a garage and a front door on the ground floor and you drove into the house. Then you had a stair up to the main living spaces on the first floor, and the bedrooms above – very much like one of the slides that Piers described.

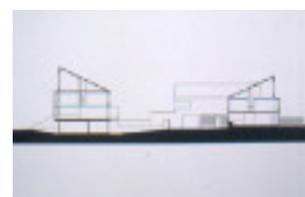
We wanted to make two key distinctions, though, from this type, one of which definitely comes from the London example, which was to manipulate the section of the ground such that you drop down into the garage of the house and then have a stair up to the principal living floor of the house, so that your front door is on the principal living level and also the

front door is then raised above the street (2). In this case it is on a canal, gives you a very good view when you are coming in and out of the house. The other thing that this stair does is provides a bridge or extends the house beyond the limited boundaries of the core of the house. One of the matters we discovered very quickly in Holland is because everything sits on piled foundations, anything you extend beyond the limited boundaries of a house, out to the front or to the back, comes at significant additional cost because even garden walls need piled foundations, and piled foundations can go 22 metres into the ground. Therefore this normally becomes one of the main buffers (3).

Someone told us when we first started working there that with Dutch housing one of the simple rules is that every Dutch house is basically a box and then you can have one extra thing, as an architect, as your gift from the developer. It is not entirely true but working with and understanding the budgets of housing in Holland is a very important element.



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If I then move on to the next slides, this house type is organised around the principal living spaces on the middle two floors of the house. You have a level of bedrooms on the second floor and living room/dining room on the first floor, garage on the ground floor (4). There is another room at the back that could be a garden room, with an option to have a kitchen at that level, and then a room that has a number of optional uses at the top. It could be a work space, it could be an extra bedroom, an extra bathroom. It could also form some sort of children's playroom.

These spaces are very adaptable in terms of when the buyer is buying the house they have a lot of choices as to how these various floors are laid out. There are no structural internal partitions and, as all the houses are sold, or 60% of dwellings are sold before they even start building on site, you always have the option of offering options in the way the building is constructed, prior to construction actually taking place.

Here we come to the overall urban plan (5). The section that was shown previously is through this section here. That is the section we worked on.

Promenade dwelling, the one that I have just described here. We also worked on the park dwelling here. The site is an island, which was formerly a timber yard, which needed significant decontamination, which resulted in the development of about 600 dwellings produced by four architects, a mix of 75% free market housing and 25% social housing.

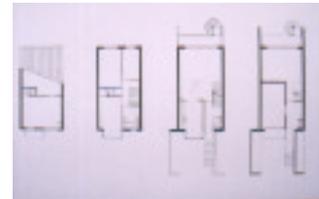
It is a mix of house types but, as you can see, predominantly terraced house types. There is an apartment building at the north, here, a couple of small apartment buildings here (indicating on slide), a terrace of walk-up apartments there, an apartment block at the southern end here, a number of semi-detached and detached types here, but the rest is some form of terraced type, those mixed between drive-in types and houses that rely on parking on the street. Other than the drive-in types and the semi-detached and detached types, none of the houses have on-site parking, as it were.

One of the key elements in the urban planning was in the way you deal with the terrace when it meets the corner or when you get to the end of the street (6). It is one of the things we investigated here: how you deal with windows, the way that the bays return, the way you cut through a terrace (7). It is those elements that make terraces of houses into an urban plan. It is the spaces they define that become more important.

Another thing that we used on this project was the use of the monopitch roof, which there are certain complexities with the traffic organisation in this plan (8). This dwelling type actually has a garden here that faces onto the park and is entered from the mews on the other side. But it was very important, from the point of view of the urban plan, that the block was clearly defined (9), so we used the monopitch to accentuate the outside, the urban side of the block as opposed to the inside of the block, which is the lower side.

The monopitch actually works very well in view of

the construction systems that are used in Holland. Often with monopitches you can get problems with cost, coming from the stability of the height of the wall at the front, but because you are dealing with cast concrete walls and prefabricated façade panels, it is a relatively economic solution. Overall this scheme was at a density of 49 dwellings per hectare.



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This slide moves on to the next scheme. This is Ypenburg (1). This is a typical new suburb being developed in the Netherlands. It is a former military airbase. We have done two buildings within this first phase. The overall development, when it is completed, will be a settlement of about 7,000 dwellings with a town centre here (indicating).

The first phase consists of 1000 dwellings, almost entirely housing and almost entirely terraced housing. As you can see on this plan here, there are three apartment buildings here and then two apartment buildings here and here, which were the projects that we worked on, which were defined in the urban plan as apartment buildings but which we have developed as a terraced type solution. Everything else is terraced housing.

Within that, there is a variety of parking solutions but virtually all the parking is on the street, on the public highway. There is a row of houses along the edge here, that are of a type very similar to the promenade housing, the promenade house that I showed previously, with the canal. Then there is a boulevard that runs through the middle of the development here, where the parking is in the centre of the street. (11) Then on all the other streets parking is to the side. The parking ratio is just over one parking space per dwelling. The reason that can be achieved is because there are some areas like this, where you can achieve greater levels of parking, and some of the green spaces where you have more road without houses on both sides, so you can achieve a slightly higher level of parking.

This is an image that picks out one of the buildings that we did and is an overall image of the urban planning model (12). The structure of urban planning in the Netherlands is such that generally, on a project like this, all the architects of, at least the first 1000 dwellings, will be commissioned at the same time. I think there were about six or seven architects in this case. All those architects will work on the designs of their individual plots for their individual clients at the same time. Then they have regular meetings when all those architects will come together for crits and often you have to make your scheme for them fit into an overall model.

It is part of a supervision process. A project like this will always have a supervisor, who may be the urban planner who did the original design but may be someone else separately, who is responsible for coordinating the process of developing an urban plan, as realised through all the dwellings within it, and usually that person is responsible for trying to force those developers that are being reluctant to do what is consistent with the urban plan in order to make sure that materials co-ordinate between one and the other.

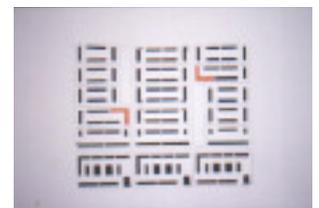
Generally urban plans do not have any rigid codes about what the buildings will look like. There will be suggestions to do with the heights that you are working to but generally there is fair freedom to vary

things. Therefore this sort of supervision system is seen as a flexible way for the urban plan to develop, without having too many fixed rules or codes to work to.

This is the block that we developed (13). It is a corner block. There are two of them. There are two of them. They sit at the end of the park spaces. Our client for this was a housing association, so it is social housing. The client did not have a lot of choice in which buildings he got within this urban plan. He was slightly hoping for more low rise terraced housing and not apartment buildings. Therefore our brief was really to try to make the dwellings within this building as houselike as possible, which was consistent with the context.



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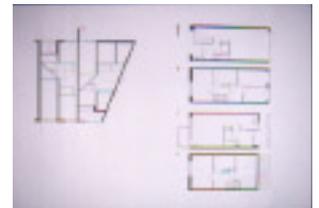
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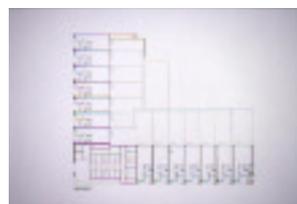
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Therefore what we tried to do with this was this. This was a series of two-storey units that face the street, with smaller units above and also two storeys that are accessed from an internal gallery at second floor level, that is entered from an entrance on the corner and has a balcony to the street at second floor level. Then you have a much higher façade to the street, that is to do with defining the public space,(14) and a lower façade of three storeys to the garden, which then has different, softer materials that relate to the language of garden stores and the lower rear façades of the adjacent dwellings.

All the dwellings within this plan are based on the same structural grid, which is a 4.8 metre bay; three bedroom dwellings on the lower floor with gardens to the rear and two-bedroomed dwellings on the upper floor, that go up into the roof space (15). This is an image of the gallery, so you have a section that is a very high gallery, that is internal and glazed.(17) Then in the next image we can see, one of the key strategies we found we needed to use, in order to achieve a reasonable level of finish and reasonable quality of materials for the principal façade of the building. You have to be very rational in the way you deal with the structure. One of the complications often in these situations is how you take this around the corner. (16)

We wanted to try to achieve a continuous bay spacing, which allowed us to minimise the cost of the construction but also gave the repetition to the façade that is characteristic of the terraced house. The problem you always have is how to deal with the houses on the corner. The advantage that having the upper levels gave us is that there is always, in Holland, a statutory requirement for ground level stores for your bicycle, your old sofas and all that kind of thing. Therefore we have a block of all the stores that sits on the corner of the building, that then allows a separation between the houses at ground level. Because the dwellings at the upper level are smaller, they can work with a single aspect elevation.

This is a third project (18). This is part of an estate renewal. It is at the Bijlmeer, which is in south-east Amsterdam. The original development is about 40,000 dwellings, which is these slab blocks that you can see at the top edge. A number of them are being demolished. There is originally a slab block on this line.

The preferred form was defined within the urban plan (19). The reason for that was partly to maintain the existing mature trees that originally had sat either side of the original slab block. Therefore the brief we were given by the urban designer, one was to have a depth of block that was quite limited because of the need to maintain the trees on either side, and secondly the quality of landscaping on either side that meant that we were asked to try to find a solution to keep the cars completely out of the space in the middle of this crescent and the space adjacent to the water here.

Therefore we developed a house type, which were very tall and narrow houses, three and a half or four

storeys at the waterfront, two and a half storeys to the crescent, to the inner green space (20). These house types sit either side of a mews, which is private, and each house has its own integral garage. On the lower house there is the plan is getting wider so that there is a limited space next to the garage, below the house. On the other house, you have one large garage on the ground floor, then you have terraces on the first-floor level that are more or less the size that a garden would be in typical current developments that are happening in Holland.

Then within the plan of all these you can see here – this is quite an extreme case – a four-storey dwelling with an unprotected stair all the way up through that dwelling. That is partly achieved by alarm systems that are used within that dwelling. The other house is two storeys.

I suppose the other characteristic is because there are no cars out in the streets, this house here has a particular relationship of the lower hall, living room space. This was something particularly asked for by one of the communities that was interested in buying this house because it came from the original housing blocks. Those original housing blocks had very large halls within them, that were seen as communal spaces. The idea was that this space would work with the front door and a cupboard space outside the front door. It would act like a veranda and would give a very open relationship through the front façade of the house to the river.

Then the project is developed with very simple brick elevations, very tall windows, one window in each floor, one room on each side, on each floor, internal bathrooms.



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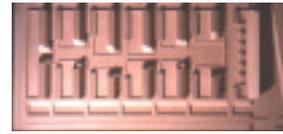
Then this final project - Langarar - maybe this project is interesting because this is also terraced housing but it is where we are deviating from a conventional terraced housing solution (21). This is a project where, our initial response to the brief, this is part of an urban extension to Utrecht. It is a place called Lanarac. It is within an urban plan by Case Christiaanse. The urban plan adopted a lot of the drainage, sort of drainage ditch structure that existed in the previous field structure, and within that defined building fields, and within those building fields defined a set of codes for each building field that defined, in quite abstract ways, things like the density, the relationship of the buildings to the perimeter of each field; defined within each field a central space in each field which had to be left open, had to be shared, with a location for a community playground and was also a place that formed part of an ecological drainage system that existed within that neighbourhood. (22)

But within that solution we felt that the most obvious approach was to do detached houses, or detached and semi-detached houses, because at 27 dwellings per hectare that was possible. But we were very quickly told by our client that the financial model for housing in the Netherlands did not make that possible. It was so constructed, the three-storey terraced house is such an efficient economic model that it is very difficult to deviate from it, even in situations when it might make sense architecturally. It would have made more sense maybe in terms of use of space.

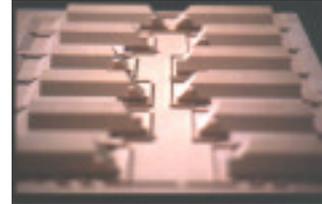
Thus we adopted a scheme here that is based on the terrace but based on an interpretation of the terrace in the context that it was also to be a low energy housing scheme. Therefore we have a terrace where none of the terraces face the street, all the terraces are perpendicular to the street and sit around parking courts with barn structures that are for passing cars and for the external stores. The shapes (23) of the buildings are such that every single house has a south-facing garden, has the majority of the rooms orientated to the south and has a roof shape that minimises the overshadowing of the gardens to the north. (23)

Here we can see the plans, the ground floor plan of the dwellings, as living space. This is a shared middle court, parking or court. There are parking spaces within these barn structures. These are the stores, the statutory required outside stores. Then you have a front door into a hall, a living space, and then a kitchen with a separate door also into the kitchen. The idea is that this space should become very much a communal space between each of these houses. (24)

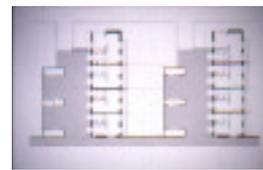
Then on the section you can see the section is fully utilised. You get a level of living space and then bedrooms with bathrooms and another smaller bedroom sitting under the roof at the back. Then the roof space at the top is also fully utilised, with the potential for extra bedrooms and also possibly a work room, hobby rooms.



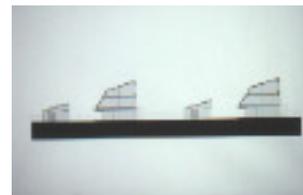
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Here we can see the final realisation of the project. (25) The project defines quite a hard edge to the roads at the outside, the use of garden walls, which, from what I was saying earlier, we had to fight quite hard to achieve. There are the gables and then that contrasts with the central space where the houses have hipped roofs and the tiles return to the ground and all the gardens are defined by hedges.

Unfortunately when these photographs were taken, the landscape was not quite completed so here you can see all the buildings completed and the people have started moving in, but because the developer does all the houses and the local authority does this landscape space at the centre, that probably will not be completed for another year or so (26). They are quite happy to wait for the right growing season, they do not have to worry about the selling of the houses. Here we see a close-up view of the dormer window that sits on the end dwellings, of which you can see a couple here. There are two different types, one faces across the space, one faces north. Those are there to give a variety and a further modelling to this central organic space within the development. (27)

Then at the north end of the site we have another type which faces a canal and on the other side of the canal there is a road. Because in Holland there is a building regulation that means you have to achieve certain sound reduction levels from the road, although we have lots of windows on that side, we have actually turned the house round completely so that you enter it through the garden and then so you have a gate here and your post-box here. You enter through the garden into the house. (28)

This would be a very unconventional thing, maybe, to do in the UK but it is quite a normal thing to do in Holland, there are numerous examples of houses which have this relationship of house to garden, use of the front garden as the main sitting out space. People have a very different attitude to privacy. I think that is probably quite a distinct difference between the two countries. (29)

That is the end of the slides. All I want to say in conclusion is that I think the Dutch model of urban development results from a consensus. That consensus is firstly between a need to achieve relatively high densities, which make the terraced house a requirement. That is because of historically the cost of land in the Netherlands. The cost of land is maybe not actually in financial terms but in the amount of effort and money that is expended on maintaining the water levels, on draining it and increasingly on decontaminating it.

Secondly, it is to satisfy the enormous demand that exists in Holland for a house with gardens. Traditionally it is a country where a greater proportion of the population have lived in flats but, as it is becoming a more prosperous country, more and more people want to live in houses with gardens. Although 35 to 45 dwellings per hectare is quite a

high density for these suburban developments, it is probably lower than the densities of places where people were living before. Thus in a way it probably, in Holland, represents a reduction in density. That is probably something that is not generally perceived when we are looking at these examples from the UK. Finally, within all this, it is seen as a political imperative that all this housing is provided in an affordable way. That relates very much to the constant research that goes into reducing construction costs, such that everyone can have a good quality of house at an affordable price, whether it is for a rented sector or a private sector.



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