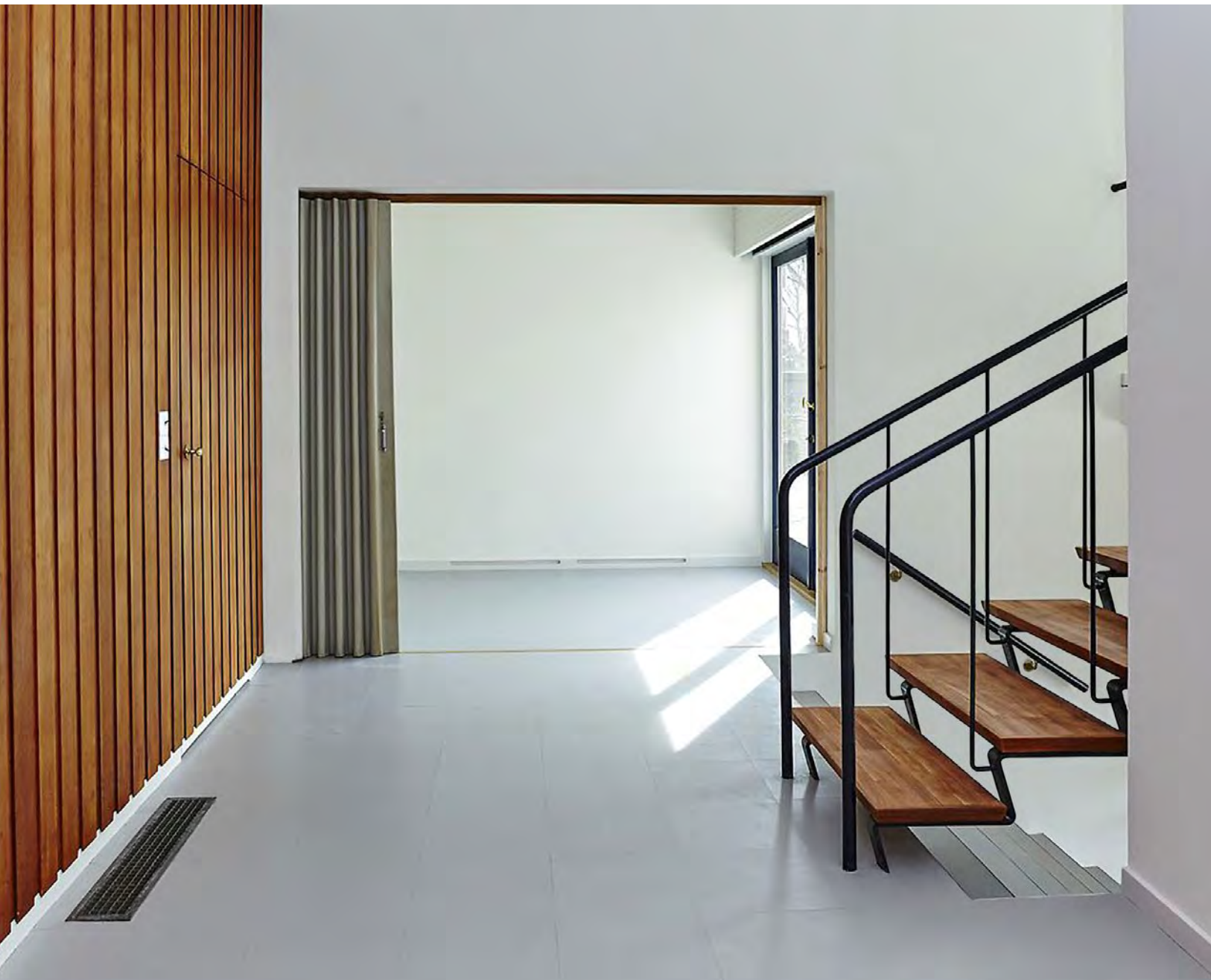


Realdania By & Byg's historical properties

2003
2023



Realdania
By & Byg

**Realdania By & Byg's
historical properties**

2003 - 2023



4 **Foreword**

6 **A normal day in Arne Jacobsen's private residence**
Interview with resident
Michael Kastrupsen

10 **Good examples of restoration should be shown off**
Interview with Merete Lind Mikkelsen,
head of unit, Danish Agency for Culture
and Palaces

Essays

18 **If these walls could talk**
By Arne Høi, head of department,
Royal Danish Academy

24 **Houses for women – a woman's space in the home**
By Jannie Rosenberg Bendsen, postdoc; Associate
Professor Svava Riesto and Associate Professor
Henriette Steiner, University of Copenhagen

30 **The forgotten colours and wallpapers of functionalism**
By Vibeke Andersson Møller, senior research
associate, National Museum of Denmark

36 **Energy, sustainability and building culture**
By Associate Professor Freja Nygaard Rasmussen,
NTNU Trondheim

Building typologies

48 **Rural building culture**
By ethnologist Lene Floris MA, MPG

54 **The houses of power in the urban landscape**
By architect MAA, journalist and author Dorthe Bendtsen,
BA in art history

58 **Architects' own houses**
By architect MAA, journalist and author Dorthe Bendtsen,
BA in art history

64 **The buildings of industrialisation**
By Anne Mette Rahbæk, development director,
Realdania By & Byg

70 **Administration buildings from Skønvirke to modernism**
Anne Mette Rahbæk, development director,
Realdania By & Byg





Foreword

Realdania By & Byg was established by the board of Realdania in 2003. The aim at that time, as it is now, was that the company is to help meet Realdania's objects by acquiring real property with a view to preserving the built heritage. This was to be within the framework of Realdania's philanthropic strategy.

With this outset, Realdania By & Byg has built up a portfolio of historical buildings, which today includes more than 60 properties, often composed of several buildings, across all of Denmark. Together, they illustrate the development of Danish building culture over 500 years: in terms of architecture, materials, building techniques and functions.

From the very beginning, preservation of the Danish built heritage through ownership of historical properties was based on the principle that the buildings acquired are to be good representatives of the period in which they were built, and the function they have had. There was clear recognition of the daunting size of the task and that purchasing hundreds of buildings was not possible.

Another central principle from the start was that the built heritage must be relevant and alive in the present, and that the buildings therefore have a contemporary function and, as a minimum, earn a market-based rental income to secure a good level of maintenance.

Even though the buildings are let, information about them is communicated regularly, both through open-house events and through books about the individual property, which are published after completion of a restoration. Furthermore, Realdania By & Byg organises more than 200 tours and events at the properties every year. There has been growing interest in these events over the years, and today the Realdania By & Byg Klubben counts more than 5,000 paying members.

In 2013, Realdania By & Byg published a summary of the first 10 years of the company's activities. Now, yet another decade has passed. This time, focus is on the portfolio of historical properties, and this publication contains a multitude of voices, perspectives and narratives, including interviews with tenants and listing authorities, and essays written by a spectrum of experts, each of whom throw a fascinating perspective on the historical portfolio. Finally, there are a number of articles with focus on the building typologies included in Realdania By & Byg's portfolio of historical buildings. Together, these articles form a tiny extract of our common history, told through the Danish built heritage.

Peter Cederfeld
CEO
Realdania By & Byg

A normal day in Arne Jacobsen's private residence

Interview with resident **Michael Kastrupsen**

A house with an adjacent drawing office in Charlottenlund is the first building that Arne Jacobsen designed with inspiration from international functionalism, and like the architect himself, today Michael Kastrupsen both lives and works in the iconic house. Michael enjoys every day in one of Realdania By & Byg's portfolio of more than 60 historical properties, including when the house is open for tours every six months.

The house is situated on a suburban street in Charlottenlund north of Copenhagen, and its architectural style stands out very clearly. The architect and designer Arne Jacobsen created the house with its adjacent drawing office for himself and his family. He lived here from 1929 to 1943, when he fled from the occupying German forces to Sweden. Realdania By & Byg acquired the listed building in 2005 and restored it with focus on returning the property to its original expression and preserving it for future generations.

Today, 64 year-old Michael Kastrupsen and his wife, Pia, live in the modernist house.

The couple were quick to show their interest when, in 2017, Realdania By & Byg was looking for a new tenant for the building, and they moved into the house on Gotfred Rodes Vej in February 2018.

Feels very modern

"I'm fascinated and I feel very privileged every day when I park my car, walk up the drive and see these rectangular blocks that make up the house. It's a relatively simple design: different sized boxes put together to magically make up a very harmonious building. When you look at the house, it feels very modern, even though we're

The house in Charlottenlund is the first building that Arne Jacobsen designed with inspiration from international functionalism.



now in 2023 and it was built in 1929,” says Michael Kastrupsen, and it doesn’t only make an impression within Danish borders:

“It’s not uncommon for students to drop by. Architecture students all the way from Tokyo visited once. They spent two days measuring the windows. I think they were intrigued by the lightness of the house’s expression, and they wanted to recreate this in modern buildings,” he explains.

The white-painted and very cubic building is the first Arne Jacobsen designed with inspiration from the international school of functionalism, and while the house’s exterior is clearly different from the neighbouring houses, the design of the individual rooms is not quite as distinctive.

“It’s one thing to arrive at the house from the outside, but it’s quite another after you enter the house. We don’t walk around in the house every day and think Wow! We’re in Arne Jacobsen’s house. We live there. And what we appreciate are the good ‘vibes’ in the house; it feels good and it’s useful. Inside, the design and lay-out of the house

is actually somewhat traditional: it’s as if modernism hasn’t entirely made its mark on the interior. There’s a relatively small dining room and a very small kitchen, while there’s a very large living room and window. But it’s a nice house to live in and there’s none of those small irritations. You put the house on and it fits like a glove,” says Michael Kastrupsen.

The sum of the details

Even though the architect’s floorplan is more traditional than the exterior of the house, with an entrance hall, living room, dining room and study, as was typical for the time, Pia and Michael appreciate the unusual attention given to the details that were designed specifically for this house.

“You can’t miss the many small details – the door handles, ventilation grills and door frames – none of which mean very much in themselves, but which are clearly designed with extraordinary love and care. We sometimes wonder whether the sum of all these small details adds to the good ‘vibes’ you feel in the rooms. Perhaps, subconsciously, their effect is more profound than you think,” he says.



The drawing office wing, the house and the garden wall form a small triangular courtyard where you can quietly sit undisturbed.

The iconic house not only enfolds the couple’s privacy, it is also a large part of Michael’s working life. Michael runs his own company from the old drawing office that Arne Jacobsen added to the house in 1931. With Gotfred Rodes Vej as his base, he advises Danish businesses that want to set up in Asia, and he represents some Asian companies in Denmark. He is very appreciative of the low drawing office wing and the way it integrates with the house to frame the little courtyard.

“There’s something about this small private niche between the office, the house and the wall to our neighbour. We sit out there a lot. And it feels as if you really are working in an office – it’s a workplace: not a private home. It’s very hard to create a house that stands in its own right with an independent workplace that also stands in its own right, but where neither of them feel as if it is just an add-on to the other,” says Michael Kastrupsen.

Tours are a pleasant break

Occasionally, it is possible to experience these and other qualities of the listed house on a tour organised by Realdania By & Byg Klubben, and this also means there are special conditions for a tenant of one of Realdania By & Byg’s portfolio of historical properties. Tenants have to open their homes for tours twice a year, and for Pia and Michael this was a little intimidating at first, although they soon got used to the pleasant break in everyday life.

“We knew that this was a condition. The first tour was a bit weird, and my wife went totally overboard with the cleaning as she thought about all the strangers who would be coming to look at the house. We had to get used to it. But when the day came, we were well briefed by Realdania By & Byg and it was all exceptionally well organised. Then the visitors arrived in groups, and they were very interested, extremely well behaved and not at all intrusive. On the contrary, they were generally pleased to be able to come in and look,

utterly fascinated and very polite. This meant that it became just a lovely day or two during the year, when we knew we’d be visited by ‘people like us’ who appreciate this wonderful house. Today, we don’t consider it intimidating at all. It’s just a natural part of living here. And that’s because it’s well organised and people behave well,” explains Michael Kastrupsen.

“People think that it’s for a limited period”

The regular tours of Realdania By & Byg’s properties are basically about preserving the properties for future generations, with respect for the common good and Danish cultural heritage. However, because of the special significance of the houses, Michael Kastrupsen is equally grateful that it is possible to rent the houses without being forced to move out again three years later.

“One thing I believe is important, and which makes all the difference in your business model for us as tenants, is that we’re offered an ordinary rental contract, which can’t be terminated by the landlord. By far the majority believe that our contracts must be for a limited period. Everyone asks and everyone is pleasantly surprised when we say that we can live here for as long as we want. This means that we feel that this is also our house, and therefore we’re naturally more interested in helping to care for the house and to keep it in good condition. It’s fantastic that someone comes to maintain the exterior of the house for us, and that’s well taken care of. We also know that we have to make a little extra effort to maintain the interior of the house. We have to be careful about what materials are used, and accept that the colouring is what it is. But because we feel that it’s our house, we’re more motivated. Actually, I think that’s an important factor in getting it all to come together so that your objectives match those of the people who get to live in these amazing homes” ■



The listed smallholding, Stine's House, is a well-preserved example of local building traditions on the Danish island of Lolland.

Good examples of restoration should be shown off

Interview with **Merete Lind Mikkelsen**, head of unit, Danish Agency for Culture and Palaces

Safeguarding the building culture means that each preservation task has to be tackled in its own special way. This is why it is so important that Realdania By & Byg communicate both the building and the process to the outside world, according to head of unit at the Danish Agency for Culture and Palaces, Merete Lind Mikkelsen.

Since 2003, when Realdania By & Byg purchased the Renaissance building, the Maternal House of Oluf Bager, in Odense and the Historicist Naval School for Girls in Copenhagen, collaboration with the listing authority has been central to work on Realdania By & Byg's property portfolio. Throughout the 20 years of efforts to preserve everything from manors and merchant's houses to own homes of modernist architects, the dialogue has been about what can be done, should be done and should not be done with

each listed property: How do you preserve and underpin the cultural values best, while also making sure that the building is alive and useful in a contemporary context?

Merete Lind Mikkelsen was a head of unit at the Danish Agency for Culture and Palaces until 30 June 2023, and she has been working with Realdania By & Byg since 2016. Over the years, she has discussed a large number of restoration projects with Realdania By & Byg. Although,

naturally, there may be different views along the way, she makes no secret of the value of the dialogue, and she considers the meticulous process towards good solutions as an important joint social responsibility. Besides striking the right balance between different interests in the individual project, these solutions can also inspire other stakeholders in the building culture.

The power of example

"We can help each other and we can show examples of how we work; how we approach each new job from a new angle. So we don't just show the result, but also the process. I believe that the power of a good example is the way forward," says Merete Lind Mikkelsen.

The head of unit believes that the many, very individual restorations could potentially improve general work on the Danish building culture heritage, because they represent something that is in short supply.

"The great challenge today is standardisation in a construction sector oriented towards new building. This means that many consultants and builders have good expertise within standard buildings, but they have more difficulty with listed and preservation-worthy buildings. This is because, seen with contemporary eyes, all these buildings have their own characteristics and particular materials. Today, being able to see that there is something special, and to assess how we can continue a building's narrative in the future is reserved for specialists, even though, with the right knowledge, it is actually far easier to do this than to build new," claims Merete Lind Mikkelsen, and she stresses the importance of recognising the skills that exist in the area.

"Many people want to work with restoration projects, but if they don't have the right qualifications, they're banging their head against a brick wall. In this context, we can provide appropriate

conditions for consultants with the required knowledge and skills. It's absolutely crucial that we help each other: both you and us as the listing authority," she says.

Inspiration for owners of listed and preservation-worthy buildings

According to Merete Lind Mikkelsen, one important aspect of work to restore the many different buildings is to demonstrate an alternative to new building.

"By buying and restoring such a wide variety of building types, you're showing another way – especially in the homes, but also in offices. I mean another way than building new. Existing buildings are usually of higher quality, with a longer lifetime, so it's super sustainable. Besides this, the special features that many people look for but don't know how to find are often embedded in the existing building stock. They just have to be revived. If you can focus on getting young home buyers to understand this, you'll have made an invaluable contribution for the future," she says.

Merete Lind Mikkelsen is reluctant to encourage owners of listed buildings to throw themselves into projects to make their buildings something entirely new, because this will often tarnish the very history of the buildings that the listing is there to protect. However, she believes that many owners of listed buildings could draw inspiration from an approach whereby the individual property is restored and made use of taking outset in the individual house, its history and the local area.

"Realdania By & Byg's particular skill, which is very inspirational for many listed and preservation-worthy buildings, is that you try to reconcile a restoration with a business plan. You show good examples of how you can invest money in a restoration and get it to work. I think you're good

“ You can drive around in an area with very run down houses and then go past something that simply seems to shine out. And it's contagious. Others think wow! It really is possible!



The architect Poul Erik Thyrring's private home is peacefully hidden in a forest by Skjern Å river. It has a distinctive choice of materials and severe Brutalist style. The house was acquired by Realdania By & Byg in 2021 and it is not listed.

The Maternal House of Oluf Bager from 1586 is both one of the oldest houses and one of the earliest acquisitions in Realdania By & Byg's property portfolio. Realdania By & Byg acquired the building in 2003.



at finding a balance between doing what's necessary to make buildings attractive and useful on the one hand, but not overdoing it on the other. I think that Realdania By & Byg harvests more and more experience about what's required with every project. How do you make things absolutely clear, and how do you find people to live in the building and use it?"

Important for outlying areas

"I think that you're also becoming more and more courageous and buying some very special houses situated in the most unknown of places. In my opinion this is extremely positive," stresses Merete Lind Mikkelsen.

"It means that we're changing the map of Denmark, and that's invaluable. There are listed and preservation-worthy buildings all over Denmark, and you look at them all, including on remote islands or in the heathlands in Jutland, where people can live as they want to. That's truly admirable and truly non-popularist. But it also involves a risk, and I think it's very commendable," continues Merete Lind Mikkelsen.

The head of unit believes that Realdania By & Byg's work will automatically benefit more and more people as the portfolio grows. If Realdania By & Byg were to focus on a specific area, according to Merete Lind Mikkelsen it could well be outlying areas of Denmark.

"If I had to suggest how your experience could benefit even more, I'd say that you should get even more involved in outlying areas. This is where things are hard, and this is where there is most need for charitable foundations. You can drive around in an area with very run down houses and then go past something that simply seems to shine out. And it's contagious. Others think wow! It really is possible! I think this is good. If you can find standard solutions for the building types you have, this will really benefit others. You have both very special houses, such as modernist works, where you have to do things in a certain way that can't be repeated in many other places; and you have other houses where you do things in a more traditional manner. It's important to continue in this vein."

Joint efforts

According to Merete Lind Mikkelsen, another possibility for the future could be to consolidate efforts with other players, as with the Tøndermarsk Initiative in which Tønder Municipality, A.P. Møller Fonden and Realdania joined forces in 2016-2022.

"There are potentials worth looking at: If you're going to buy something, and others are looking at something that needs restoring, then what can you do together? You have a lot of single-building projects, and that's fine, but in Højer, for example, Realdania By & Byg purchased something, and Realdania took part in a more extensive process. That really makes a difference, it's an example of how an individual building can develop and then the whole area can develop. But Realdania By & Byg could also join with others than Realdania," she suggests.

Life cycle assessments

Besides the first 20 years of work to acquire, restore and communicate more than 60 historical properties, Merete Lind Mikkelsen spotlights an initiative that started in 2019: Realdania By & Byg's systematic life cycle assessments of the carbon footprint of completed restorations and transformations. Life cycle assessment is now incorporated in all new projects and it has been extended to include the climate impacts of heating and maintaining the buildings.

"Something that really benefits people is your LCA analyses – they're invaluable. Your extensive property portfolio enables you to do this sort of work. And if people like you don't do it, then it won't get done! Because there are so many stakeholders in the green area who don't just want to be green, but who also want to run a business, it's a huge advantage when LCA is conducted for philanthropic purposes, i.e. with an aim to make things better, and not because some producers have an idea about what you should or shouldn't do. Also because some calculation models are still problematic with

regard to the length of the lifetime of a building. There's a long way from a 500 year-old castle to the LCA lifetime applied in calculations. It's interesting to see the possible alternatives where, instead of applying standard lifetimes, we actually know the lifetimes of slate tiles and bricks, and – as you do – give others access to some of the techniques."

The more things are made open to the public, the better

Even though Merete Lind Mikkelsen places priority on the potential to inspire others who manage building culture, she believes that you cannot underestimate the importance of bringing these properties to a wider public audience. When asked about the importance of the many tours of historical properties organised by Realdania By & Byg for support and understanding of the work being done on the properties, she replies unhesitatingly:

"Enormous! It really is: Listen. You buy something and people can go and look at something you've just bought and see all the wear and tear it may have. Most people can't see through rooms with nicotine-covered walls, marks from old pictures and what they think are rotten windows. Then they come back after one or two years and they can see what can be retrieved through restoration and by only replacing what is absolutely necessary. It's so good! And it's important to come both before and after, so that people can see what we've purchased – and see what we've restored. The more tours, the more things are made open to the public, the better. It's crucial, and no one else is doing it really. And I think that it's vital that not only the building itself and the building's own value come to light, but also the process and the building's narrative," explains Merete Lind Mikkelsen ■



Essays

If these walls could speak
Houses for women – a woman's space in the home
The forgotten colours and wallpapers of functionalism
Energy, sustainability and building culture



If these walls could speak

By **Arne Høi**, head of department, Royal Danish Academy

The simple smallholding on Skovbøllingvej shows influences from the architectural style and period referred to as "Better Building Practices". The buildings teach us about an important chapter in Danish social history and the architectural trends of the time.

"If these walls could speak." I often hear this expression when I visit older buildings. And it makes me think every time. Sure, I know. Walls don't actually speak and we can't actually hear them speak. But I still believe that if we pay attention and "listen", older buildings will have important stories to tell. They can tell us about changing living standards and different stages of societal development in Denmark, and about trends in Danish architectural styles and building culture. If we "listen" to the numerous buildings bought and restored by Realdania By & Byg over the past 20 years, they will teach us about these things, and this is just one of the reasons why they're so valuable.

A little house with a big story

One of the more humble but nonetheless significant buildings bought and restored by Realdania By & Byg is a smallholding property tucked snugly into the farm landscape north of Haderslev in southern Denmark. This small

dwelling on Skovbøllingvej 35 in Haderslev consists of two separate buildings around a small courtyard and bordered by a simple garden. The little farmhouse stands with simple, white-washed facades and a red, half-hipped roof with a pretty brick chimney on the ridge. The farmhouse building is connected to a plain, whitewashed outbuilding serving as an animal shed and barn. The roof and the upper one-third of the walls are clad in simple galvanized tiles. A functional and practical design, void of ornamentation, and with the various building elements clearly revealing their purpose. The building materials are few and simple, as is the building technique, but the buildings are nonetheless beautiful, perfectly proportioned and with a harmonious colour scheme.

When I first visited the smallholding on Skovbøllingvej more than twenty years ago, the buildings felt very familiar. They reminded me of my mother's childhood home, which I only knew about from an old, slightly yellowed aerial photo



The state-funded smallholding in the village of Skovbølling in 1948.

The listed smallholding on Skovbøllingvej is made from simple materials with just the buildings needed for a smallholding: the farmhouse with a small connecting building to stables and a barn.



that used to adorn my grandfather's living room wall. I think many others have this feeling when they visit the smallholding. And that makes sense, because more than 2,800 such smallholdings were built in Denmark in the interwar period.

Even though many of these smallholdings are still standing, in 2005 the Agency for Culture and Palaces decided to list the smallholding on Skovbøllingvej. They were lucky to find and list this smallholding still in its original condition; many other similar smallholdings had undergone refurbishment, with new layouts, double-glazed windows, new roofing or new roof designs. The smallholding on Skovbøllingvej stood almost as it had been built in 1934 by the smallholder Christian Mink, who still lived there when it was listed. The layout of the rooms in both the farmhouse and the outbuildings had been preserved, the buildings still had the original windows, and the farmhouse still had its original wood-burning stove and pantry.

Christian Mink knew the full story of the buildings and of the life lived within their walls. In Realdania By & Byg's excellent book, "Statshusmandsbrug - mellem udvikling og bevaring", Christian Mink is quoted as saying at the age of 104 that, although he had "driven in the first nail, he still had yet to hammer in the last". Today, the walls tell us stories and help us understand how these smallholders lived, how they farmed and how they were largely self-sufficient.

When it was listed, the smallholding joined the group of now almost 7,000 buildings deemed by the Danish state as of national significance and as an important part of our shared narrative because, paraphrasing the objects clause of the Danish Listed Buildings Act, they are evidence of earlier housing, workers' and production conditions, and other important social historical developments.

In their reasoning for listing the smallholding on Skovbøllingvej, the authorities highlighted the

// The walls speak of another time, when living standards were very different, but they have another message for us today. Because like in the early 1900s, we are facing societal challenges today that demand radical change.

buildings as perfect representatives of the many smallholdings built in the interwar period with state funding and based on a state assessment of their construction.

State loans for smallholders

The well-preserved smallholding was listed because it is authentic evidence of an important period in Danish history. During this period, the state sought to raise living standards for the rural population through a combination of political initiatives such as redistributing land and providing state loans and architectural advice.

A new Land Act was introduced in 1919 after lengthy political negotiations and it allowed for cheap loans to construct new smallholdings. These smallholdings were to be established on state-owned land that would be leased to smallholders with an objective that the smallholder families were to be self-sufficient and self-supporting. To be eligible for the loans, farmers had to meet a number of specific requirements concerning age,

financial situation, debt and criminal record. There were also requirements for the design and architectural quality of the buildings. The National Association for Better Building Practices, which had significant influence on new building during this period, provided consultancy and help with architectural drawing and prepared plans that emphasised good materials, simplicity without unnecessary ornamentation, and good building practices. Finally, the buildings had to be approved by the local county architect before construction. On the basis of this, the smallholders themselves could build the new buildings where they would make their home and run their farms.

A vibrant building culture

The listed smallholding on Skovbøllingvej still serves as a home and is not a museum. Realdania By & Byg took on the task of refurbishing and transforming the buildings into a contemporary home in 2010, when they acquired the property. The goal of the meticulous restoration process was to preserve the buildings as authentic



The restoration focused on enhancing the buildings' original qualities, so that the smallholding can speak to us today about the living standards, building practices and materials of yesterday.

evidence of an important period in Danish history, telling the story of the self-sufficient smallholder's life based on the buildings in which he lived. The restoration also dedicated time and resources to developing new methods of installing geothermal heating and adding other modern comforts to the buildings without disturbing their overall narrative, and by reviving the idea of a plot of land just large enough for a family to be self-sufficient.

Today the smallholding stands perfectly restored and once again serves as an inspirational model building. Thanks to comprehensive communication efforts, the buildings can be an inspiration for other, older buildings, not least the other 2,800 smallholdings built during the interwar period.

The story of the smallholdings and the major agricultural reforms is extensively described in

Danish history books, but a visit to the well-preserved smallholding at Skovbøllingvej brings life to this history. The walls speak of another time, when living standards were very different, but they have another message for us today. Because like in the early 1900s, we are facing societal challenges today that demand radical change.

The construction sector accounts for around 30% of carbon emissions in Denmark today, and the climate crisis is compelling us to rethink how we should build and live more sustainably now and in the future.

The state-funded smallholding on Skovbøllingvej has taken on a new relevance. It embodies a narrative of how, with political vision, legislation and state loans dependent on good architectural design and good materials, we can create new ways of living ■

Houses for women – a woman's space in the home

By **Jannie Rosenberg Bendsen**, postdoc; Associate Professor **Svava Riesto** and Associate Professor **Henriette Steiner**, University of Copenhagen



The kitchen in Karen and Ebbe Clemmensen's family home is carefully designed with a labour-saving layout.

The home – and the kitchen in particular – has historically been a woman's space. Realdania By & Byg's impressive portfolio of preservation-worthy buildings can therefore give us a unique insight into the conditions, opportunities and limitations experienced by women at various times in history.

The architecture couple Karen and Ebbe Clemmensen's family home from 1953 in Gentofte was designed for easy movement between the drawing board, the kitchen and the children in the living room (the house was acquired by Realdania By & Byg in 2004). A sliding door allowed the studio to be open or closed to the private home.

The solution is simple and makes sense, not just from a layout perspective but also financially: after all the drawing office sustained the family's way of life in the adjacent rooms. The sliding door also reflected gender equality, as Karen Clemmensen mentioned later in life, the short distance from home to the workplace made it easier for her to make a successful career as an architect.

However, it didn't just allow her to live out her professional dream and contribute to providing for her family, it also allowed the professional collaboration with her husband to flourish. The



The kitchen in Edvard Heiberg's family home. The tableware in the glass kitchen cabinet to the left of the sink could be accessed through a service hatch under the cabinet. After dinner, the dirty tableware was delivered back to the kitchen through a service hatch to the right of the sink.

// From the early 1940s, women began to play a pivotal role in the development of Danish homes. As demand for women in the labour market increased, the design of the kitchen came more into focus.

sliding door is therefore both a symbol of women architects' contributions to the formal labour market but also of an unequally distributed burden between men and women around that time.

Architecture as a reflection of gender perceptions

The flexible home of the architect couple is part of Realdania By & Byg's portfolio of buildings. It is one of many buildings in the portfolio that can teach us about the unique conditions, opportunities and limitations experienced by women at various times in history. For example, there is a girls' school for children of naval staff, a convent for unmarried women and a convent for widowed women. It also includes several modernist homes, such as that of Karen and Ebbe Clemmensen. This home was designed for the modern nuclear family and for the individual roles ascribed to the mother, the father and the children, in that the lay-out includes a home office space where the mother and father could work together in a professional architectural partnership. Examples of other successful architect couples, besides Karen and Ebbe Clemmensen, include Inge and Johannes Exner, whose home Realdania By & Byg also owns, and Eva and Nils Koppel, who designed a home for the engineer Jørgen Varming, which is also a part of the Realdania By & Byg portfolio (both homes were acquired in 2013). Common for

these homes is that they were not only family homes; they were homes designed by women for women: for women's work life, women's family life and women's married life.

Applying a gender lens to some of these buildings can tell us something about the perceptions of womanhood that prevailed when the buildings were designed. They can tell us something about gender perceptions, and the things women – and men – have said about the buildings can also tell us whether their lives and dreams in practice harmonised with the way the buildings were designed.

Every housewife's dream

In 1954, a reporter from the women's magazine *Alt for Damerne* visited the Clemmensen couple in their newly built house in Gentofte. The resulting article describes Karen Clemmensen as immaculately dressed and all smiles as she answers the door and takes the reporter on a tour of the house. Karen Clemmensen describes to the reporter in detail the many clever solutions she has integrated into the design, solutions that are mostly her innovation. The first stop on the tour of the house is the highly functional, high-end kitchen with its many modern appliances and labour-saving and time-saving solutions. For example, a small, built-in kitchen chute so you don't have to take waste all the way outside the house, and a small, insulated cupboard where the



A sliding door could easily be moved to close off or to open up Karen and Ebbe Clemmensen's studio to the rest of the home.

grocery boy could leave the groceries when no one was at home, keeping the groceries fresh. The cupboard could be opened from the outside as well as inside from the kitchen and was equipped with a lock. These were labour-saving and time-saving solutions befitting for a housewife and professional architect such as Karen Clemmensen. It all looked very impressive according to the reporter from *Alt for Damerne*, who described the kitchen as "every housewife's dream". Of course, all the shiny surfaces in the kitchen must have been cleaned spotless for the occasion and the family all dressed up and made extra presentable. The house appears as a dream home, just like the ones in glossy magazines or on Instagram today.

In the interview, Karen Clemmensen also reflected on the role of women in architecture. She explained how, at the beginning of her career, she had taken on many assignments that related to traditional women's spaces, such as the kitchen and the bathroom, flower decorations and furniture, but as her career progressed, her assignments gradually broadened. Eventually, she was also offered other

assignments, not typically related to women.

Growing interest in good kitchen design

Of course, Karen Clemmensen and her husband, Ebbe Clemmensen were not the only architects working to develop the home, or even the kitchen. From the early 1900s, architects in general were working on better housing. In the US and Europe, new housing complexes appeared with the objective of providing flats with better natural lighting, and with fresh air and access to nearby green areas. As early as in 1923, Karen Braae (1882-1962), chair of the Copenhagen Housewives' Association, called for greater interest in kitchen design among architects. Architect Ingrid Møller Dyggve (1890-1969) took heed of this call. She was already on a mission to improve housing and working conditions, particularly for women. For the Danish Association of Architects, she designed the "ideal kitchen", based on the idea that the modern housewife should be able to manage without the help of a maid. The kitchen was to be a healthy and hygienic space designed

to serve as a workshop for the housewife. The ideal kitchen was designed for a small flat that Ingrid Møller Dyggve designed for the Danish Housing and Building Exhibition in 1926.

From the early 1940s, women began to play a pivotal role in the development of the home. As demand for women in the labour market increased, the design of the kitchen came more into focus. During World War II, a number of public and private organisations came together to launch a large housing survey: the Joint Committee's Housing Survey. As part of the survey, architects visited and measured more than 500 flats, and interviewed their residents, to work out how to design homes, and especially kitchens, for the future.

During the same period, architect Edvard Heiberg (1897-1958), who was preoccupied with international architectural trends, began to use his own home from 1924 for design experiments. The house at I.H. Mundts Vej 16 in Virum, north of Copenhagen, was acquired by Realdania By & Byg in 2006. Edvard Heiberg designed his home with a new and more rational design concept. For example, he installed two hatches in the wall between the dining room and the kitchen to save his wife the many daily trips between the kitchen and the dining room. Instead of walking from the kitchen along the hallway to the dining room, she could pass the dishes with food from the kitchen

directly into the dining room through the hatch. After the war, Edvard Heiberg was to play a crucial role in developing a kitchen made up of standardised units: a design idea that might also have inspired Karen Clemmensen's design of her own kitchen.

Critique of the nuclear family as the ideal for "the home"

The 1960s saw growing critique of the notion that housework and cooking was women's (unpaid) work. In 1966, the architect and urban planner Anne Marie Rubin (1919-1993) said that too many urban housing developments had been built with the patriarchal nuclear family as its sole ideal. She highlighted the new women's and production collectives of the 1960s and 1970s as alternative forms of housing that allowed for radically different ways of living. Personally, she lived almost her entire adult life alone and without children. She commuted between North Zealand where she grew up and first Stockholm, then Aalborg in Denmark, where she worked as a professor. This goes to show that being a woman – even during the mid-20th century – did not mean you had to live in a nuclear family. And the question of how to design homes in the future that fit many different lifestyles – across gender, age and other identities – remains relevant today ■

Thanks to Marie Kiersgaard Espersen for editing this article.



Karen and Ebbe Clemmensen's studio – with an open view to their home.



The forgotten colours and wallpapers of functionalism

By **Vibeke Andersson Møller**, senior researcher, National Museum of Denmark

Edvard Heiberg's family home built in 1924 followed the same design as a reinforced concrete building, even though it was not built as such. Moreover, the colours used were ahead of their time.

In 2009, the Danish-Norwegian architect Edvard Heiberg's own home at I.H. Mundts Vej 16 in the Copenhagen suburb of Virum (acquired by Realdania By & Byg in 2006) attracted much attention. The house had been through a complete restoration, which included restoring the original colour scheme. The exterior of the building was now a combination of pale-ochre facades and pale-green iron windows and doors. This stood in contrast to the common perception that grew up between 1924, when the house was built, and the 2009 renovation: that functionalist buildings like Heiberg's home were white, and always had been white. Architects and architectural historians alike even used the term "the white style", but the house on I.H. Mundts Vej told a different story.

The colour scheme that re-emerged in Heiberg's house set off what can be described as an aftershock. This followed the earthquake that, at the end of the 20th century, had already begun to shake – or at least change – the perception of functionalist houses. Many people were beginning to realise that functionalist buildings had in fact been far more colourful than we had thought for so long. At the same time, an increasing number of functionalist buildings were in need of restoration. As part of the restoration process, conservators examined the colour layers of the

buildings by scraping and taking samples to reveal the original layers of paint. This was also the case with Heiberg's family home.

And it was not only in 2009 that Heiberg's house surprised. It also caused quite a stir when it was built. It was one of the very first Danish functionalist buildings, and with its simple cubic shapes, smooth facades, ribbon windows, corner windows, cantilevered balcony and new colour scheme, it stood out from the surrounding buildings. Besides the original yellow exterior of the building, the interior also sported a broad range of colours. Most of the walls were painted with distemper, but linseed oil was used in a few of the smaller rooms: the maid's room, the bathroom and the kitchen. Almost all the ceilings were painted with white distemper. Although, the colour scheme changed from room to room, the walls and windows in each room were painted in the same colour, for example, in the high-ceilinged living room they were pale ochre, in the bedroom a faded ochre, in the nursery pale green, and in the maid's room a glazed pale pink

Henningsen's surprises

During the restoration in 2015-2016 of architect and cultural critic Poul Henningsen's family home, which was built in 1937 and is located at



The walls in the central living room of the Heiberg family home were painted with a pale-ochre distemper. The colour scheme has been reconstructed.

Poul Henningsen's dining room comprises almost all the colours he chose for his interior: green walls, pale-blue ceiling, woodwork with blue frames and red lead paint.



Brogårdsvej 72 in Gentofte north of Copenhagen (acquired in 2014), an archaeological colour analysis revealed a colour scheme similar to that used in Heiberg's family home. Poul Henningsen built his home into a slope, with the master bedroom at the top, the kitchen and living and dining rooms in the middle, and bedrooms for the family's children at the bottom. For the exterior of the building, Henningsen rather untraditionally left the prefabricated concrete blocks as they were. As a colourful contrast to the grey facades, the iron windows and doors were coated with red lead paint and had a red tile border. The colour scheme was simple and unusual.

Inside the house, colour was also used to create an aesthetic and architectural effect. In contrast to Heiberg, who allowed a particular colour to define each room, Henningsen chose different colours for different surfaces that he then repeated throughout the house. The woodwork was a combination of varnished natural wood, Parisian-blue doorframes and door leaves in Oregon pine. All iron fixtures, that is, windows, outer doors, radiators, door hinges, fittings, cisterns and pipes were coated in red lead paint. The tiles bordering the windows and doors were kept in the same red, tying together the interior and the exterior. The red tiles were also used as flooring for smaller spaces, for example in the bathrooms. As the third recurrent use of colour, the ceilings were painted pale blue. Most of the walls – but not all – were painted pale green. The living room walls were painted white except for one side of the fireplace that took the same blue as the ceiling.

Two rooms, however, had an entirely different finish that was quite unpopular at that time – wallpaper. Wallpaper was often considered rather dated, but Henningsen's choice was anything but dated. He chose a pattern designed by his brother-in-law, the artist Albert Naur. Henningsen had used the pattern in his previous home in Hellerup, and was still rather fond of it.



Today, Albert Naur's wallpaper, which has been reconstructed and printed again, once again adorns the long corridor and the master bedroom in Henningsen's family home.

The wallpaper depicted loosely sketched groups of naked women, and the print was the same red colour as the house's iron fittings. Naur's wallpaper not only covered the walls and ceiling in the master bedroom; it was also used to cover the walls of the long corridor that stretched from almost one end of the house to the other.

The rediscovered wallpapers

As with Heiberg's family home, in the process of uncovering the layers of colour used in functionalist houses, conservators also sometimes unexpectedly find layers of wallpaper. Today, we tend to think of wallpaper and functionalism as something of an odd couple. And this was also a common conception at the height of functionalism – or was it? Despite the general consensus of the time that wallpaper was slightly stuffy, the progressive Bauhaus School in Dessau fought to renew its use and look. Together with the wallpaper factory Hannoversche Tapetenfabrik Gebr. Rasch & Co., the school launched the first of several collections of Bauhaus wallpaper designs in 1930. With these designs, they introduced new and unconventional wallpaper patterns consisting of small lines, grids, hatchings and similar. In Denmark, these wallpapers were called "structured wallpapers", because they added colour and a discrete textured pattern to wall surfaces.

It was not only in Germany that wallpaper manufacturers sought to tighten their ties to modern architects in an attempt to create new patterns that matched the modern functionalist home. In Denmark, wallpaper manufacturers were doing the same, and some of them even held competitions to find the best ideas for contemporary wallpaper patterns.

The Danish cooperative association "Fællesforeningen for Danmarks Brugsforeninger" (FDB) also strove to introduce Danes to quality wallpaper. In 1943, FDB launched a range of what they considered to be attractive, quality wallpapers. The range was accompanied by a short text by the architect Steen Eiler Rasmussen, in which he provided tips on how best to use the wallpaper.



Viggo Møller-Jensen chose a light and discrete pattern with blue cornflowers for the wallpaper in the entrance hall of his house.

The architect Viggo Møller-Jensen used one of the FDB patterns in his family home located at Borrekrattet 7 in Lyngby just north of Copenhagen in 1939 (acquired in 2019). Møller-Jensen was Henningsen's assistant when Henningsen was building his own home in Gentofte, and now it was Møller-Jensen's turn to build a house for himself. Similar to Henningsen, he mixed painted surfaces with wallpapered surfaces, but – as the 2021 restoration of the building revealed – he opted for slightly less daring patterns.

Møller-Jensen's L-shaped, chalked house in Lyngby presented a light and calm framework for a similarly light and colourful interior. The ceilings were white, but the colour of the walls changed from room to room. And the walls of two rooms were covered with wallpaper. In the entrance hall, Møller-Jensen chose a pattern with small, blue cornflowers – this was in fact one of the wallpaper designs FDB recommended in 1943. And for the garden room he chose a pattern with vine leaves and possibly also flower buds. Unfortunately, details of this wallpaper are only known from an

old photograph, and it has not been possible to reconstruct the pattern.

Just as the colours used by functionalists were more or less forgotten for several decades, their use of wallpaper as an architectural and spatial instrument has also often been overlooked. Even though, when building a house, the choice of wallpapers and patterns, paints and colours may seem less important than the load-bearing structure or roof, these choices do determine the final finish. Every time a house from this period is subject to an extensive analysis and then brought back to its original appearance, we learn more about that particular house – and about the architecture of an entire period. Heiberg's, Henningsen's and Møller-Jensen's houses are good examples of this. The more buildings we get to know inside and out, the better we will be able to understand the details uncovered by architects, conservators and many other craftspeople as they work on houses in the future. And the better we will become at preserving buildings and the many surfaces and details that make each of them something very special ■

Energy, sustainability and building culture

By Associate Professor **Freja Nygaard Rasmussen**, NTNU Trondheim

The building culture represented by Realdania By & Byg's extensive portfolio of historical buildings holds a host of exciting narratives about the location of the buildings, the period in which they were built, as well as the people who planned, built and used them. And by far the majority of these buildings were built at a time before modern technical solutions to save energy were invented. Based on today's standards for energy consumption, historical buildings often fall into the category of worst-performing buildings as regards energy efficiency. Over the course of the past couple of decades, the building industry and politicians alike have equated energy-efficient buildings with sustainability, but it is not always that simple. When working with historical buildings, the challenge is to demonstrate whether the building culture can in fact be both energy-efficient and sustainable today.

Energy efficiency is not the same as sustainability

Energy efficiency and sustainability are two different, albeit linked, perspectives on the

fundamental question of needs and resources in buildings. However, the two concepts are sometimes challenging to manage in practice. Energy efficiency in buildings is well defined and primarily concerns a building's physical status – that is, whether the building can maintain a comfortable and healthy indoor climate with minimal loss of energy. This means that an energy-efficient building uses less energy than a non-energy-efficient building. In a globalised world such as ours, in which growth is hastily exceeding the Earth's limited resources in more than one regard, we must reintroduce the concept of restraint, and minimise our energy consumption and use of materials as much as possible to maintain an acceptable standard of living for everyone. However, how to distribute our resources is a difficult political discussion that we cannot address here. In addition to restraint, we need to think in terms of efficiency – how we can achieve the best possible result using the least possible energy and materials. The major culprit with regard to energy consumption is waste from production,

The thatched roof of Marskgården in Højer, acquired by Realdania By & Byg in 2016.





Hotel room in the former farm building at Hindsgavl Castle. The reused bricks are not just aesthetically pleasing, they also reduce the building's carbon footprint.

primarily CO₂. Climate change from the accumulation of CO₂ and other greenhouse gases in the atmosphere can be felt in Denmark and in the rest of the world, making it abundantly clear that our current emissions of CO₂ are undermining the preservation of our natural resources and as such are far from sustainable. Focus on energy efficiency is therefore one of the many steps towards a sustainable society, but this cannot stand alone.

Building culture as non-consumption

The concept of sustainability gained impetus in the 1970s following the radical predictions of limits to growth presented by scientists from the Club of Rome organisation. The UN has been particularly prominent in disseminating the concept of sustainability, and has had the admirable objective of uniting the world's populations to act for a better future for people and for the planet. As the concept of sustainability has gained more attention among the general population, industry and politicians, its (mis) use has exploded; a development that has recently come under fire. And all too often consumer products are marketed on the claim of being sustainable. This appeal to consumerism is one of the most prominent causes of the challenges facing humanity today with regard to maintaining a healthy planet with space for everyone.

Having said that, the existing historical buildings are not a consumer product in the same way as a toaster. Besides being a valuable part of our historical and cultural heritage, historical buildings also constitute an actual material resource that we should protect. Considering the amount of CO₂ we have already released into the atmosphere, it is imperative we refrain from producing more new building materials than absolutely necessary. This is especially true in new building as material consumption is very high for such projects. In other words, we must

New and old heating sources in the Odense Secular Convent for Noblewomen acquired by Realdania By & Byg in 2008.



be better at using and appreciating what we have, and we must also think about how we can improve existing buildings, for example in relation to their energy efficiency.

Realdania By & Byg's restoration projects from a climate perspective

Today, new buildings have to meet many requirements about their performance, and the energy efficiency of buildings in particular has improved significantly since the oil crisis in the 1970s. Due to these requirements, new buildings use less energy for heating per square metre. On the other hand, their material consumption has increased due to the use of extra insulating components as well as technical installations to control the indoor climate. The building sector is very familiar with the requirements for new buildings, and there are many standard solutions for materials and components. Reducing a building's energy demand is very much in focus when restoring one of Realdania By & Byg's

historical buildings, both to increase comfort for users of the building and to reduce heating costs. However, standard solutions are not always easy to find. Realdania By & Byg's portfolio of historical buildings covers several hundred years of different building styles, each of which requires well-thought-out individual solutions as well as expert knowledge. Moreover, the preservation value of the buildings means that many modern-day technical solutions to increase energy efficiency cannot be applied.

Even though analyses of the carbon footprint of the materials and energy used in connection with Realdania By & Byg's portfolio have shown that their restoration projects often significantly reduce the buildings' overall energy consumption, consumption is still somewhat higher than the expected energy consumption over time of a newly constructed building. On the other hand, the carbon footprint of the materials used in a restoration project is much lower than in a new

building. This timing is important, especially because climate researchers have calculated precisely how much CO₂ we can afford to emit, the so-called Carbon Budget, and based on this, they have concluded that we will have to halve our carbon emissions by 2030 if we are to ensure that we do not exceed global temperature increases of 1.5°C. We need to cut carbon emissions now, and we must also do our utmost to reduce future emissions, for example through fossil fuel-free energy production.

Valuable lessons about resources

Overall, we can say that there are many ways to increase the efficiency of historical buildings, some of which are better than others; however, all initiatives have an immediate positive effect on reducing CO₂ emissions. With regard to the overall sustainability of our architectural heritage, several aspects can be highlighted, in particular the resource awareness inherent in many, especially older houses. These houses were built to last a long time, and they were designed such that fragile elements were protected and elements exposed to wear and tear could easily be replaced. There are also the social aspects of a shared building culture. The many historical buildings in Denmark are part of our historical and cultural heritage and should accordingly be treated with due respect. In restoration, preservation and operation of buildings, Realdania By & Byg strives to respect their original expression, detail and history. The result of these efforts is a broad portfolio of historical buildings that not only represents a priceless cultural capital, but that also serves as inspiration for a more resource-aware way of using the buildings in which we live a large part of our lives ■



Window restoration, Marskgården in Højer.

1500

1700

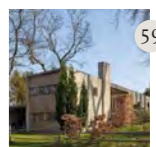
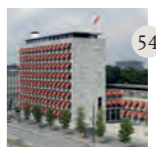
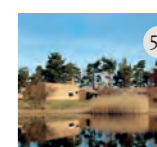
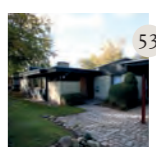
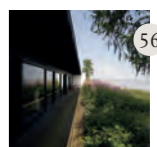
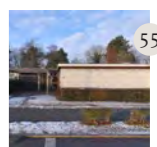
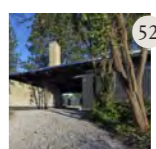
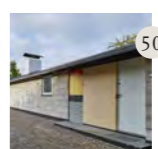
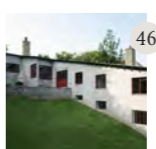
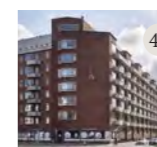
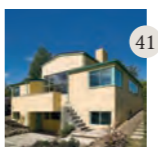
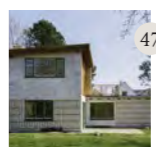
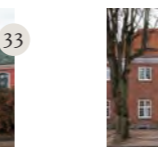
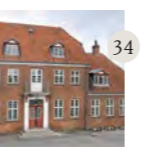
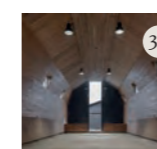
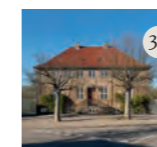
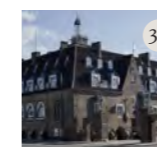
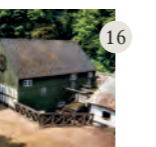
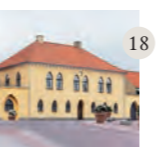
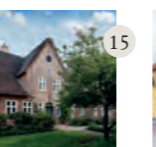
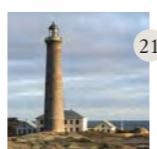
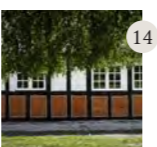
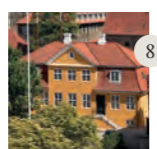
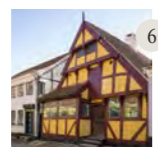
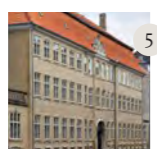
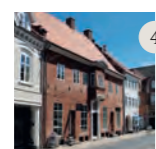
1900

1800

1600

List of Realdania By & Byg's historical properties 2003-2023

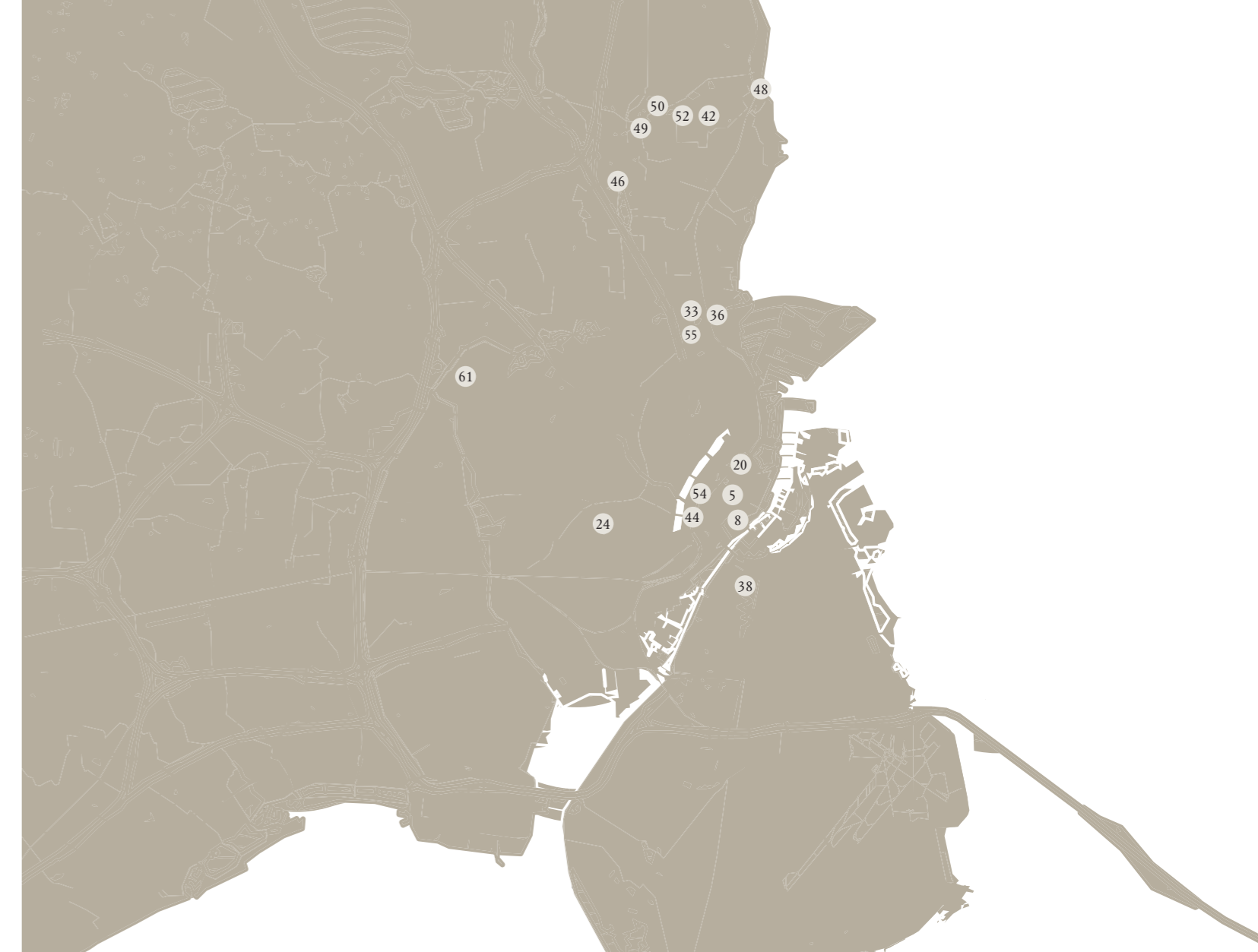
- 1 1504 and later Odense Secular Convent for Noblewomen
- 2 1542 and later Nørre Vosborg, Vemb
- 3 1580 Taarnborg, Ribe
- 4 1586 and later The Maternal House of Oluf Bager, Odense
- 5 1663-1669 The Harboe Widow's Convent, Copenhagen
- 6 1690 Prior's House, Ærøskøbing
- 7 1723 and later Marcussen's Yard Aabenraa
- 8 1742 and later The Fortification Depot, Copenhagen
- 9 1757-1770 Poul Egede's Home, Ilimanaq, Greenland
- 10 1764 Nørre Sødam Farm, Møgeltonder
- 11 1775 Stine's House, Lolland
- 12 1777-1779 Digegreven's House, Tønder
- 13 1784-1785 Hindsgavl Castle, Middelfart
- 14 1795 Bent Madsen's Farmhouse, Dreslette
- 15 1823 Højergård, Højer
- 16 1827 Gammelby Mill, Fredericia
- 17 1838 Koch's Courthouse, Store Heddinge
- 18 1843-1845 Kornerup's Town Hall, Vordingborg
- 19 1853 Bindsbøll's Town Hall, Thisted
- 20 1858 Naval School for Girls, Copenhagen
- 21 1858 Skagen's Grey Lighthouse, Skagen
- 22 1858 Dyrehave Mill, Nyborg
- 23 1860 Meldahl's Town Hall, Fredericia
- 24 1860 Riise's Country House, Frederiksberg
- 25 1864/1873 Højgården, Sejerø
- 26 1865 Kaline's House, Læsø
- 27 1880 Tvede's Town Hall, Sorø
- 28 1892 Amberg's Town Hall, Esbjerg
- 29 1898 The Foundries, Præstø
- 30 1901 The Jensen Family Farm, Korup
- 31 1905 The Harbour Master's House, Skagen
- 32 1906 The German-Inspired House, Højer
- 33 1907-1908 J.F. Willumsen's Family Home, Hellerup
- 34 1908 Gelsted Station, Gelsted
- 35 1910 The County Governor's Residence, Hjørring
- 36 1913 The Rosen House, Hellerup
- 37 1917 Bakkekammen 40, Holbæk
- 38 1917 The Balloon Hangar, Copenhagen
- 39 1918 Country House designed by Kay Fisker, Snekkersten
- 40 1918 Ejnar Ørnsholt's Private House, Nakskov
- 41 1924 Edvard Heiberg's Family Home, Virum
- 42 1929/1931 Arne Jacobsen's Private Home, Charlottenlund
- 43 1934 State-Guaranteed Smallholding, Skovbølling
- 44 1936 Kay Fisker's Private Flat, Copenhagen
- 45 1936 Arne Jacobsen's Private Holiday Cottage, Gudminderup
- 46 1937 Poul Henningsen's Family Home, Gentofte
- 47 1939 Viggo Møller-Jensen's Family Home, Kgs. Lyngby
- 48 1951 Arne Jacobsen's Private Home, Klampenborg
- 49 1952 Varming's Family Home, Gentofte
- 50 1953 Clemmensen's Family Home, Gentofte
- 51 1954 Esken, Fårevøjle
- 52 1955 Erik Christian Sørensen's Private Home, Charlottenlund
- 53 1956 Bertel Udsen's Private Residence, Kgs. Lyngby
- 54 1956-1959 Jarmers Plads 2, Copenhagen
- 55 1958 Wilhelm Lauritzen's Private Residence, Hellerup
- 56 1958 Gunnløgsson's Private Residence, Rungsted Kyst
- 57 1958 Knud Friis' Family Home, Brabrand
- 58 1960 The Roman House, Helsingør
- 59 1963 Inger and Johannes Exner's Family Home, Skodsborg
- 60 1966 Glasalstrup, Hasselager
- 61 1969/1971 Poul Erik Thyrring's House, Herning



Realdania By & Byg's historical properties



- | | | | | | | | |
|----|---|----|---|----|--|----|--|
| 1 | 1504 and later
Odense Secular
Convent for Noblewomen | 16 | 1827
Gammelby Mill,
Fredericia | 31 | 1905
The Harbour Master's
House, Skagen | 56 | 1958
Gunnløgsson's Private
Residence, Rungsted Kyst |
| 2 | 1542 and later
Nørre Vosborg,
Vemb | 17 | 1838
Koch's Courthouse,
Store Heddinge | 32 | 1906
The German-Inspired
House, Højer | 57 | 1958
Knud Friis' Family
Home, Brabrand |
| 3 | 1580
Taarnborg,
Ribe | 18 | 1843-1845
Kornerup's Town
Hall, Vordingborg | 34 | 1908
Gelsted Station,
Gelsted | 58 | 1960
The Roman House,
Helsingør |
| 4 | 1586 and later
The Maternal House
of Oluf Bager, Odense | 19 | 1853
Bindesbøll's
Town Hall, Thisted | 35 | 1910
The County Governor's
Residence, Hjørring | 59 | 1963
Inger and Johannes Exner's
Family Home, Skodsborg |
| 6 | 1690
Prior's House,
Ærøskøbing | 21 | 1858
Skagen's Grey
Lighthouse, Skagen | 37 | 1917
Bakkøkammen 40,
Holbæk | 60 | 1966
Glasalstrup,
Hasselager |
| 7 | 1723 and later
Marcussen's Yard,
Aabenraa | 22 | 1858
Dyrehave Mill,
Nyborg | 39 | 1918
Country House designed
by Kay Fisker, Snekkersten | 61 | 1969/1971
Poul Erik Thyrring's
House, Herning |
| 9 | 1757-1770
Poul Egede's Home,
Ilimanaq, Greenland | 23 | 1860
Meldahl's Town
Hall, Fredericia | 40 | 1918
Ejnar Ørnsholt's Private
House, Nakskov | | |
| 10 | 1764
Nørre Sødam Farm,
Møgeltønder | 25 | 1864/1873
Højgården,
Sejersø | 41 | 1924
Edvard Heiberg's
Family Home, Virum | | |
| 11 | 1775
Stine's House,
Lolland | 26 | 1865
Kaline's House,
Læsø | 43 | 1934
State-Guaranteed
Smallholding, Skovbølling | | |
| 12 | 1777-1779
Dige greven's
House, Tønder | 27 | 1880
Tvede's Town Hall,
Sorø | 45 | 1936
Arne Jacobsen's Private
Holiday Cottage, Gudmindrup | | |
| 13 | 1784-1785
Hindsgavl Castle,
Middelfart | 28 | 1892
Amberg's Town Hall,
Esbjerg | 47 | 1939
Viggo Møller-Jensen's
Family Home, Kgs. Lyngby | | |
| 14 | 1795
Bent Madsen's
Farmhouse, Dreslette | 29 | 1898
The Foundries,
Præstø | 51 | 1954
Esken,
Fårevejle | | |
| 15 | 1823
Højergård,
Højer | 30 | 1901
The Jensen Family
Farm, Korup | 53 | 1956
Bertel Udsen's Private
Residence, Kgs. Lyngby | | |



- | | | | | | | | |
|----|--|----|--|----|--|----|---|
| 5 | 1663-1669
The Harboe Widow's
Convent, Copenhagen | 33 | 1907-1908
J.F. Willumsen's Family
Home, Hellerup | 44 | 1936
Kay Fisker's Private Flat,
Copenhagen | 50 | 1953
Clemmensen's Family Home,
Gentofte |
| 8 | 1742 and later
The Fortification Depot,
Copenhagen | 36 | 1913
The Rosen House,
Hellerup | 46 | 1937
Poul Henningsen's
Family Home, Gentofte | 52 | 1955
Erik Christian Sørensen's
Private Home, Charlottenlund |
| 20 | 1858
Naval School for
Girls, Copenhagen | 38 | 1917
The Balloon Hangar,
Copenhagen | 48 | 1951
Arne Jacobsen's Private
Home, Klampenborg | 54 | 1956-1959
Jarmers Plads 2,
Copenhagen |
| 24 | 1860
Riise's Country House,
Frederiksberg | 42 | 1929/1931
Arne Jacobsen's Private
Home, Charlottenlund | 49 | 1952
Varming's Family
Home, Gentofte | 55 | 1958
Vilhelm Lauritzen's
Private Residence,
Hellerup |



Building typologies

Rural building culture

The houses of power in the urban landscape

Architects' own houses

The buildings of industrialisation

Administration buildings from Skønvirke to modernism

Rural building culture

By ethnologist **Lene Floris** MA, MPG



Højgården on Sejerø after restoration. The farm is characterised by its local variant of half-timbering known as "sidebånds-bindingsværk" where internal timber fillets connect internal posts, making it seem as if there are only posts.

Realdania By & Byg's portfolio of historical properties includes illustrative examples of variations and changes in building traditions since the 16th century. Ten buildings represent rural life and have examples of very different local building traditions and the transition to more standardised building practices that developed alongside industrialisation. The following takes a closer look at some selected examples.

The older building tradition reflects access to local building materials, soil quality, wind and weather conditions and variations in the social landscape. Up until around 1850, the vast majority of farms on Zealand, Lolland-Falster, Funen and in eastern and northern Jutland were different versions of half-timbered buildings, while buildings made of burnt bricks were characteristic of the southern and western parts of Jutland.

Half-timbered structures varied in construction and whitewashing (with fully whitewashed facades on Zealand and the islands around Zealand, and with tarred or painted exposed wooden structures in the rest of Denmark). Half-timbering is a flexible building technique and it is like a building set that can be adapted to natural resources and be used several times. Furthermore, clay-built bays can easily be replaced. It was therefore relatively easy to move or extend as needed and as budgets allowed. Examples of this are Bent Madsen's Farmhouse in Dreslette, Kaline's Seaweed House on the island of Læsø, and Højgården on the island of Sejerø (acquired by Realdania By & Byg in 2018, 2010 and 2017, respectively).

The early foundation wall construction is visible in manors such as Nørre Vosborg and Hindsgavl Castle (acquired in 2004 and 2003, respectively), which applied the most up-to-date building techniques from abroad, and those used in the treeless landscapes such as marshlands and the west coast of Denmark. Foundation wall structures were also wind and weather resistant, as in the Nørre Sødam Farm at Møgeltønder (acquired in 2019). From the mid-19th century, foundation wall buildings were out-competed by half-timbered buildings in most of Denmark.

Changes to buildings and landscapes should be seen in the context of technical, political, social and socioeconomic changes. The late 18th century agrarian reforms consisted of a series of laws gradually removing the old feudal system. The reforms abolished the old tenancy system, i.e. serfdom to landlords, and gave peasants better opportunities to acquire a freehold, as was the case when Bent Madsen's ancestors escaped from life as tenant peasants to become owners of the farm in Dreslette in 1856. The agrarian reforms also contributed to dissolution of the old village community, and land was redistributed to consolidate the land attached to an individual farm in one place. Up until around the year 1800, land in most of Denmark had

been cultivated collectively in two-course or three-course systems, with pastures used for common grazing for both farms and houses. The farmhouses stayed in the village through star-shaped redistribution ("stjerneudskiftning") or were moved out into the landscape through block redistribution ("blokudskiftning"). There also had to be room for smallholder families, as these were important labour for farms and manors, and hitherto they had also been entitled to share the common grazing land. Smallholding colonies were established in several places on the pastures, and Stine's House on Lolland is an example of this (acquired in 2019).

The second major change was the transition from vegetable production to animal production, which was supported by the cooperative movement's dairies and many associations for exports butter and bacon, for example. New industrially produced building materials came into play in the last half of the 19th century, and the Jensen Family Farm in Korup (acquired in 2020) is an example of this. The farm was built in 1900 in the wake of the opportunities provided by the cooperative movement, industrialisation and the new architectural ideals of the day.

The third change was the barring of entail, which was introduced by law in 1919. The law removed the last privileges linked to Denmark's large estates. Properties which were previously inherited in full by the first-born son were now subject to ordinary rules of inheritance. In this connection, landlords had to pay 25% of the value of the property as a government tax and, in return for a compensation, they had to surrender 1/3 of the land for state-funded smallholdings like the well-preserved smallholding in Skovbølling (acquired in 2010).

The fourth change was rural depopulation and the migration to the cities as well as the transition to industrial monoculture farming following the Second World War. Today, there are once again few owners and very large farms in the Danish countryside, and these are run using modern

technology and with very few employees. Features from this development can be seen in several buildings such as the farmhouses on Sejerø, in Korup and Dreslette, where fewer and fewer hands were needed for an ever growing and more efficient production.

In other words, the building culture cannot be viewed in isolation, but should be considered on the basis of economy/ecology and owner/social conditions, and the role of the state, with respect to legislation and central control, should not be underestimated.

Nørre Sødam in the marshlands

In the marshlands of west Schleswig, the building is located on an artificial mound (værft) to protect people and animals against flooding and storm surges. Nørre Sødam was an important farm as early as the 17th century, but the current buildings are from 1764. Archaeologists have dated the mounds in the area back to the 13th century, and the tradition of building on these mounds is thought to stem from the Frisians who invaded the area. The farm building has a farmhouse, a stable and a barn built together, and the four wings have all been built with red foundation walls. The local traditional roof structure consists of solid pillars and beams, carrying the large thatched roof. The walls are not load-bearing, and this was important during storm surges. Even if the outer walls were destroyed by the water, the building and the thatched roof would not collapse, and crops,

animals and people could be protected inside the building. When dikes and drainage were established, this method of construction became unnecessary.

Kaline's House on Læsø

The style of the house, with seaweed-thatched roofs, is solely found on the island of Læsø. The small simple house was built in mud brick, the stable floor was laid with natural stone, also called fieldstone, and people and animals lived under the same roof – a feature that dates back to the oldest forms of living. The house was built using recycled timber, e.g. from washed up flotsam. This is because wood was a scarce commodity, as Læsø's forests had been depleted by centuries of open-pan salt making. The building's simple half-timbering is a good example of adaptation to local conditions and also shows the flexibility of half-timbered structures, as the building was extended from nine to 12 bays. Læsø also offers an insight into a division of labour and gender roles that was uncommon in the rest of Denmark. There was female succession, as women were primarily responsible for agriculture, whereas men were responsible for fishing and went out on boats. It was also women – at least those of more humble birth – who were skilled in twisting the seaweed sheaves for the roof.

Højgården on Sejerø

On the island of Sejerø and in the north-western part of Zealand is a special variant of half-



timbering with "sidebånd", i.e. internal timber fillets connecting the internal vertical posts, making it seem as if there are only posts. This special half-timbering technique is considered the oldest in Denmark, but the farm is only from 1864/73, which shows that the building technique was chosen to suit local conditions where wood was a scarce commodity.

Stine's House on Lolland

The smallholding at Pederstrup is an example of the effect of central control, i.e. the agrarian reforms, on farming and utilisation of landscape and labour around 1800, when a small colony of smallholdings was established outside the village's block redistributed farms. Here, smallholder families could almost provide for themselves, but they still needed a secondary source of income, which they obtained by working for others. The half-timbering functions like a building set, with

extensions and reused materials, and below the thatched gables is a traditional local "skyne" (a small lean-to) for storing tools, firewood etc.: functional and cheap. The facade of the house is whitewashed; it was cheaper and less time-consuming.

Two farms on Funen: Dreslette and Korup

Bent Madsen's Farmhouse in Dreslette was built in the late 18th century, and the Jensen Family Farm in Korup is from 1900. Bent Madsen's Farmhouse expresses the period around the agrarian reforms, while the Jensen farm reflects the fully implemented switch to animal production. The old system with tenant farmers on Dreslette was replaced by monetary payment in connection with the agrarian reforms in 1789, and the family no longer had to supply 18 plough days and 73 working days with horse and cart to the manor.

Nørre Sødam at Møgeltonder was built on a mound – an artificial elevation from the 13th century – to protect against flooding. The farmhouse is one of the last intact mound farms ["værftgårde"] in Denmark.



Kaline's House represents a local building tradition unique to Læsø.



Bent Madsen's Farmhouse is a classic Danish farm and a well-preserved example of a building practice typical of Funen.

The farmhouse has a robust half-timbered oak construction, and, as was typical on Funen at that time, the wings of the house were built in a pillared construction. This building technique used to be common throughout Denmark and it points back to the Iron Age. The load-bearing elements, the pillars, are in the centre of the building. The rich Funen soil provided enough resources to wash the walls in several colours and decorate the lower bays with blue or white patterns. The timber was painted black or auburn.

In Dreslette, you can follow history layer by layer, while the Jensen Family Farmhouse in Korup is a unique snapshot of a farm anno 1900 built in purchased bricks and with new materials such as slate, concrete and cement. The Jensen Family Farmhouse was rebuilt following a fire according to the latest trends, e.g. space for one of the new crops: turnips. They generated a high milk yield that could be delivered to the cooperative dairy. The many new associations and outlets were crucial for the farm's economy.

Common to these two farms is that they reflect the working conditions of the time, with

farmhand's rooms and maid's rooms, and the mutual hierarchy of the buildings. New machines were introduced, tractors replaced horses in the 1950s, while pig production expanded, and cattle were moved outside stables during the 1970s.

Skovbølling

The state-funded smallholding from 1934 near Haderslev in southern Jutland is an example of the government's involvement in the barring of entail in 1919 and the reunification of North Schleswig with Denmark in 1920. The government wanted to support financially people with modest means by offering loans and architectural expertise to help them establish their own intensive farms. The small farmhouse from the interwar period was built using cheap cement bricks that were plastered over and red-dyed cement roof tiles, and the agricultural building with stables and a barn had a tin roof and a tin truss. Around 1930 in particular, many new smallholdings were built in southern Jutland, also to support the Danishness of the area. The Better Building Practices ("Bedre Byggeskik") association collaborated with the Central Land Board on advice and standard drawings ■



The newly restored Jensen Family Farm in Korup attracted 1,300 people, when Realdania By & Byg held an open house event in October 2022.

Stine's House on Lolland with the local "skyne" (a small lean-to) for storing tools and firewood.



The houses of power in the urban landscape

By architect MAA, journalist and author **Dorthe Bendtsen**, BA in art history

Throughout Denmark, government and local offices and institutions have marked their presence by what could be referred to as “the buildings of power”: town halls, customs houses, post offices, police stations and prisons. Realdania By & Byg’s portfolio of historical properties contains several examples of state-owned buildings like in Hjørring, where the original county governor’s residence (acquired by Realdania By & Byg in 2011) reflects the presence of the government: the building contained an official residence and administration for the King’s representative in northern Jutland. However, of all the buildings of power in Realdania By & Byg’s collection, the six town halls, courthouses and jails, with their comparable functions and typologies, are particularly good examples of developments in both architectural trends and views on imprisonment through the 19th century.

From classicism to historicism

Most town halls in Denmark were built in the 18th and 19th centuries, although they were fairly modest in the provinces, especially in the 18th century. But this was all about to change. In the second half of the 18th century, focus was on building new town halls, which, despite their modest size and appearance, needed a certain stateliness. The architecture was classicist and particularly defined by the most powerful Danish architect of the time, Christian Frederik Hansen. As the Chief Building Director, he was involved in the construction of all public buildings in Denmark. His classicist style was inspired by ancient Greece and Rome, but also

by the Renaissance’s ancient inspiration in architects such as Andrea Palladio in 16th century northern Italy. The perception of Greece as the cradle of democracy made classical architecture a perfect ideal for town halls.

However, the universal classicism began to totter during the 19th century. In the wake of the introduction of the Danish constitution in 1849 and thereby the end of the absolute monarchy, a wave of town hall buildings arose. This was because citizens now had more power, and more local autonomy was introduced. Now that the monarchy was no longer absolute, a greater national sentiment was considered crucial for establishing a new social system. Consequently – and in light of Denmark’s defeat to Prussia and Austria in the Second Schleswig War in 1864 – efforts were made throughout the 19th century to strengthen national sentiment and Danishness, and this was reflected in culture, in art and in architecture, where it was expressed in the so-called historicism. Inspiration still came from abroad, but was now no longer limited to ancient Greece and Rome, and in Denmark architectural style was also taken from the Middle Ages and from Christian IV’s Renaissance buildings, built in the days of yore when Denmark was considered a powerful nation.

The Dutch Renaissance style, sometimes referred to as Christian IV style, is characterised by red brickwork, rounded gables and light-coloured ornamentation, and with its reference to the

The County Governor’s Residence in Hjørring, designed by Hack Kampmann, was built in neoclassicist style in 1910.



Dutch bourgeoisie society, it was an obvious ideal for town halls. Moreover, symbolism was taken from the independent medieval and Renaissance city states in northern Italy, as these could serve as good examples for the new town hall in a municipality or a market town that wanted to signal the freedom and independence of its citizens. In the mid-19th century, the Gothic Revival style was considered the second most distinguished style after classicism, and it was inspired by both northern Europe (e.g. from many medieval town halls) and by Victorian England, where the Gothic Revival style was very popular. The Gothic style was considered genuine and pure – qualities a city would probably like to reflect in its new town hall.

Realdania By & Byg’s six town halls, courthouses and jails were all built at different times during the 19th century and with different features from historicism. Two of them were among the first buildings in Denmark to move away from

classicism and incorporate examples from other countries and periods into their architecture. This applies for the two oldest town halls in the portfolio: Jørgen Hansen Koch’s courthouse building in Store Heddinge from 1838 and Peter Kornerup’s in Vordingborg from 1845 (acquired in 2011 and 2009, respectively)

Powerful bricks

The search for historical – as well as domestic – references of the time was also apparent in the building materials considered typically Danish: granite, timber and not least red bricks. The preference for bricks led to bare brickwork, revealing the many brickwork details. The youngest of Realdania By & Byg’s town halls in particular belong to the national trend primarily inspired by the Danish Middle Ages and the Renaissance; in addition to Bindsbøll’s Dutch Renaissance town hall in Thisted (acquired in 2007), both Tvede’s town hall, courthouse and jail building in Sorø from 1881 and Amberg’s in



Four of Realdania By & Byg's six town halls: Koch's Courthouse in Store Heddinge, Bindsbøll's Town Hall in Thisted, Kornerup's Town Hall in Vordingborg and Tvede's Town Hall in Sorø.

Esbjerg from 1892 were built in red bricks (both acquired in 2010). The plastered walls of classicism were replaced by bare brickwork with rich ornamentation. Ferdinand Meldahl's town hall, courthouse and jail in Fredericia from 1860 (acquired in 2004) was also constructed in red brick. However, the building is more inspired by European architecture, as the facades are a cavalcade of style features from many countries and periods.

While historicism found inspiration from the past, buildings were characterised by increasing

industrialisation, and completely new building materials could now be developed. Building materials could also be imported from other countries with the new steamships and steam trains that made transport both practical and affordable. Traditional bricks and medieval details were unproblematically mixed with modern materials of the time such as cast iron and slate.

The important first floor

Building facades not only reflect changing architectural trends. Even on the outside, they

also clearly show the functions of the building that were considered most important: the town hall and the courthouse in preference to the jail. This hierarchy could be read in the facades, with larger windows and more ornamentation on the top floor, where the chamber of the town hall and courtroom were located, and the lower and more unostentatious ground floor, where the jail and the associated living quarters for an arresting officer were located. The ground floor was typically laid out with cells towards the back or in a wing. From here, the inmates had access to a jail courtyard, whereas the arresting officer's wife and staff had access to different courtyards with outhouses for firewood, laundering, etc.

The hierarchy continued inside the building, where the rooms on the first floor had higher ceilings and more elegant colouring on the walls, stucco ceilings or painted beams and delicate carpentry in doors, architraves and panelling. The interiors also reflect the changing architectural trends. Where the interiors of classicism were typically painted in pale colours such as grey and white, historicism became very colourful and ornate.

This overall floor plan is found in all six town halls owned by Realdania By & Byg and had become dominant during the 19th century. Jørgen Hansen Koch's town hall, courthouse and jail in Store Heddinge from 1838 was one of the first examples of this layout of functions and rooms and became almost a prototype for 19th-century town halls in the Danish provinces. This type of building arose as the winds of change blew over Europe and the US, with new attitudes to punishment and thus also the layout of prisons. In the 18th century, society increasingly believed that a criminal could improve in prison and return to society to play a useful role. These new trends meant that the previous shared cells, with a risk of bad influence from other inmates, were increasingly replaced by single

cells. Koch was ahead of his time in Store Heddinge, because a couple of years would pass before a prison commission was established in 1840 to reform the Danish prison system. Koch was the Royal Master Builder, and his experience with designing jails must also have made an impression, because he became a member of the commission. Not only did every inmate now have their own cell, but heating and lighting also had to be installed in the cells.

Notable buildings in the urban landscape

Common to the six town halls, courthouses and jails is also their notable location in the urban landscape. The town halls were stately buildings in themselves, exuding grandeur in their size and architecture. But their very location in the town also reflected their important function. Unlike today, when the town halls were built, the other buildings in town usually only had one storey and were typically built wall-to-wall with the neighbouring building. However, town halls were built with two storeys and were more or less separate from the surrounding buildings, although perhaps attached to neighbouring buildings by walls or gates. Town halls were often placed prominently at the centre of the town square. Ambitious buildings with such great exposure appealed to a certain humility and pride at the same time.

Of the six town halls, only Esbjerg has a tower. The main shape of the building is no longer symmetrical, and the tower is located asymmetrically and very visibly on the corner of the building, where it is visible from a distance in the straight streets of Esbjerg. It is also the youngest of the six town halls, from 1892, and it thereby concludes how the six town halls illustrate the development in architectural history through the 19th century, from classicism to historicism and the transitional harbingers of a breakthrough in architecture ■

Architects' own houses

By architect MAA, journalist and author **Dorthe Bendtsen**, BA in art history



Knud Friis' family home in Brabrand seen from the courtyard.

My own house and garden. This is how many Danes want to live today, but just 100 years ago by no means everyone had the option to live in this way. Things changed over the 20th century, when home ownership became possible for others than the most wealthy – including architects. When architects designed a house for themselves, they were both the owner and the

architect, and they were free to experiment with very modern solutions that many others would have found unconventional or too daring. Realdania By & Byg owns 17 houses designed by architects for themselves, and if you also include the “engineer’s own house” and the “architect’s own flat”, the category includes 19 properties. Architects’ own houses tell about developments through the 20th century through their architecture, building techniques, materials and floorplans.

Home ownership for many

The first detached housing estates in Denmark were built in the second half of the 19th century, but the houses were by no means for everyone. They were very costly and just for the wealthiest members of society. Not until the early 20th century did a house slowly become a realistic ambition for others, helped along by the Better Building Practices (Bedre Byggeskik) movement. The objective of the Better Building Practices movement was to build sustainable houses made of quality materials with good craftsmanship inspired by traditional building methods. Another objective was to make it possible for more people to live comfortably.

Home ownership was extended to even more with the introduction of cheap government home loans from 1933 to 1959. These loans made it possible for “the common man”, as the saying went, to own his own house and garden. The cheap government loans also gave young and newly qualified architects an opportunity to start their own drawing office, because the many new building contractors meant there was a lot of work. Young architects could also build their own houses earlier in their careers than would otherwise have been possible; perhaps with an integrated drawing office. And they not only built the house they wanted: They also built something they could show off to potential contractors and other customers. The architect Viggo Møller-Jensen described architects’ strong sincerity and commitment in 1938 in a letter to the municipality about building his own house in

Kgs. Lyngby just north of Copenhagen (acquired by Realdania By & Byg in 2019). He wrote that architects who design their own house reach the result “after the most serious consideration”.

After the Second World War in particular, more and more people could buy their own house as development of the welfare state began to accelerate through the 1950s, and with the house-building boom from the 1960s and onwards.

Rings around towns

Detached houses were built where there was space, i.e. in rings around old town centres and along arterial roads. Later, ever-larger housing estates appeared in suburbs, where building plots were still affordable. Around Copenhagen, development followed the Finger Plan and the local S-train network, and the architects moved in as well. This is where the majority of Realdania By & Byg’s portfolio of architects’ houses are situated and in the area around Hundesømosen in Gentofte so many architects built houses for themselves that it was nick-named Arkitektmosen (mosen means ‘marsh’ in Danish). The married architects Karen and Ebbe Clemmensen built their house here in 1953 (acquired by Realdania By & Byg in 2004) and Erik Christian Sørensen built his in 1955 (acquired in 2019). In Aarhus, Knud Friis built his house in Brabrand in 1958 (acquired in 2011) and he followed the same trend with new housing situated on then undeveloped areas outside the city, with views over open fields. Similarly, Ejnar Ørnsholt built his own house in Nakskov in 1919 (acquired in 2021), and when it was finished it was the first house in an entirely new neighbourhood.

New ways of living

New trends in how we live arose during the 20th century, and these are reflected in the floorplans of houses. In short, rooms for entertaining were out, and rooms for everyday life were in. The first house Arne Jacobsen built for himself, the functionalist house he built in 1929 on Gotfred



Viggo Møller-Jensen's family home in Kgs. Lyngby after restoration.

Rodes Vej in Charlottenlund, north of Copenhagen (acquired in 2005) is a good example of the traditional bourgeois ideals behind the design of the early houses, although the white, cubic exterior was very modern. Rooms for entertaining were on the ground floor, such as the dining room, lounge and study, private bedrooms were on the first floor, as well as the maid's room. A separate dining room was important, even though it was usually only used for a few hours a day, while children usually shared the same bedroom. Differences in the materials and detailing in the rooms followed this layout, and the living rooms were more elegantly decorated than the private rooms. Arne Jacobsen's house has oak doors on the ground floor, while on the first floor they are just painted, and the door handles facing the rooms for entertaining, where they are visible to guests and business visitors, are more ornate than the simple standard wooden handles facing towards the kitchen. Poul Henningsen, also known as PH, also designed a house for himself (acquired in 2014), but he liked to be provocative and he turned the hierarchies upside down. Although his house did have a room for a housekeeper, there was no difference between her room and the other rooms in the house, and the dining room was deliberately

intended for several functions, such as an area for teenage children and their guests. This was unheard of at the time the house was built in 1937.

However, during the 1940s, and particularly during the 1950s, everyday life slowly gained more influence, and the dining room gave way to an eating area in the kitchen, or it was integrated with the living room - the predecessor to our modern kitchen-diners and open-plan kitchens. It was similar to the farmhouse kitchen, but it had not been seen before in towns and cities, as the artist and architect J.F. Willumsen learned when in 1906-08 he designed a house for himself in Hellerup (acquired by Realdania in 2002 and taken over by Realdania By & Byg in 2003) and had to apply for dispensation to include a kitchen-diner. As time passed, the previous small, hidden-away kitchens began to open up to the rest of the house, and this was an advantage for the housewife, who could more easily keep an eye on life in the house. It was even part of an idea of gender equality, which, among others, preoccupied Edvard Heiberg. His own house from 1924 (acquired in 2006) is not only considered to be the first functionalist house in Scandinavia, he was also a first-mover with the most

recent trends, because although the house does have a dining room, it is open to the living room and there are two serving hatches to the kitchen.

With greater focus on everyday life, it was also considered important that children had their own room, and preferably several small rooms rather than one large shared room. This meant that floorplans were divided into several small bedrooms and a large living room, where the family could gather with or without guests. The change in layout was also due to technological advances from stove heating, which meant that rooms were located depending on where the chimney shaft ran, to central heating with radiators, which allowed the layout to be independent of the chimney.

Usually, bedrooms were located in one part of the house, and communal areas in another, but the modern trend was to change this around. Bertel Udsen did so with his own house in 1956 in Hjortekær near Kgs. Lyngby (acquired by Realdania in 2001 and taken over by Realdania By & Byg in 2003). He placed the master bedroom by the living room, with only a large sliding door between them, and away from the children's bedrooms, which were at the opposite end of the house. The nursery, entrance hall and bathroom could be closed off with doors, while rooms in the rest of the house were open to each other. This open plan and the fluid passage between rooms were the new housing trends in the 1950s, and other houses in Realdania By & Byg's portfolio bear witness to this. The most extreme example is Halldor Gunnløgsson's private residence at Rungsted Kyst, built in 1958 (acquired in 2006). The house contains the usual functions such as study, dining room and living room, but there are neither walls nor doors between them, and the kitchen and bedroom are open to the rest of the house, although they can be closed off with large sliding partitions.

Integrated drawing office

Many of Realdania By & Byg's architects' houses

were built with the aid of the cheap government loans that made it possible to add a commercial extension to the residential part. Therefore, many of the houses have an integrated drawing office, and the architects were creative in their solutions. Several of them built their drawing office in more or less open connection with the living room, for example, so that the rooms could benefit from each other's space, light and air, and perhaps add an element of flexibility when needed. In the Clemmensen couple's home, the living room and drawing office are joined but can be divided by a large sliding door. In contrast, in some of the other houses the drawing offices are more separate, e.g. in the Arne Jacobsen and Erik Christian Sørensen houses. Nevertheless, the rooms are still commercial areas in all the houses. Inger and Johannes Exner's family home in Skodsborg was completed in 1961 (acquired in 2013), with the drawing office isolated on the lower floor, although today these rooms can be used as part of the dwelling. The same applies to the drawing office in Knud Friis' family home built in 1958 (acquired in 2011) which was located as an extension to the living room on the first floor and which today is used as an additional space: a flexible floorplan that can be changed as the needs of the residents change.



Svenn Eske Kristensen's holiday home "Esken" in Fårevejle. The picture was taken during an event for Realdania By & Byg Klubben.

Architectural trends from throughout the world

With changes in the layout of these houses followed changes in their appearance. From the often symmetrical Better Building Practices houses with regular, equally sized windows, the new differentiated floorplans also created asymmetrical facades, because the size and location of the windows and doors now increasingly followed the functions of the rooms rather than a rigid facade structure. In 1924, the free design of the facade was one of the architect Le Corbusier's five points for modern architecture. Another was the rooftop terrace, and Arne Jacobsen followed these trends at Gotfred Rodes Vej. Another of the ideals of the time was that buildings were to be built in reinforced concrete, although neither Arne Jacobsen nor Edvard Heiberg could live up to this, even though their homes may look as if they could. Behind the smooth surfaces, the house on Gotfred Rodes Vej is actually made of brick and Heiberg's house is a timber structure. The international functionalism that characterises both these 1920s buildings was inspired by trends in Germany and France in particular, but this changed during the Second World War. Many Danish architects lived in Sweden during the war, most because there was still work available there, but others had to flee, because they were of Jewish descent, like Arne Jacobsen, they were communists, like Edvard Heiberg, or they opposed Nazism, like Poul Henningsen. In Sweden, Danish architects could at first hand draw inspiration from the Swedish architect Gunnar Asplund. The Finnish architect Alvar Aalto also influenced the Danes when he worked in Sweden for a period. Inspiration from further afield also found its way to Sweden and travelled home with the Danes after the war ended. New trends from traditional Japanese architecture and the US, with both the American architect Frank Lloyd Wright and the German-born architect Mies van der Rohe becoming part of Danish architecture.

No matter where the inspiration came from, these houses shared features such as good materials,

clarity in construction, careful technical detail and a close connection between the inside and outside, both physically and visually through large windows. The new materials and building techniques of the time paved the way for modern architectural expression, for example the large windows made possible by double-glazing. In the early 1950s, double-glazed windows were still relatively new and expensive. This decade also saw the new roof structure; the flat built-up roof, which put an elegant lid on Gunnløgsson's and Erik Christian Sørensen's glass houses.

However, many architects also still had focus on traditional Danish features: A modular timber construction could, with a little imagination, be described as a half-timbered house, the saddle roof is a sensible and traditional type of roof, and Denmark has been manufacturing bricks and building with them since the 1100s. Several of the architects' own homes had yellow bare-brick facades and pitched roofs, so the architects did not totally throw away the traditions of their homeland, even though they embraced the latest international trends. Among other things, the result was what Kay Fisker called the "functional tradition".

In the course of the 1950s other materials for the outside walls became popular, including porous concrete blocks. They had been seen before, but a new feature was that the walls were not rendered, so although many considered the blocks very cheap and simple, they were visible. Karen and Ebbe Clemmensen's and Vilhelm Lauritzen's 1950s houses are both testament that these blocks can be made attractive (the latter was acquired by Realdania By & Byg in 2022). Of course, Poul Henningsen also aimed to provoke in this context, when as early as in 1937 he used bare porous concrete blocks in his own house.

Concrete was also the main material in Knud Friis' 1958 family home near Aarhus, at least in the long walls on the first floor that were made from concrete cast on-site with visible traces of the shuttering used in the mould. Several have

The dining room in Poul Henningsen's family home in Gentofte was also a living room for his teenage children and their guests.

appreciatively described the expression as mild Brutalism, while others considered the house raw and unfinished and thought that the family must be poor as they clearly could not afford to make the home cosy and comfortable but had to live with the bare surfaces.

Poul Erik Thyrring may also have shocked with his choice of facade cladding on his house near Herning (acquired by Realdania By & Byg in 2021). The house is an old cottage built in 1969, then purchased and renovated by the architect in 1971, and again renovated in the mid-1980s. The facade cladding is made of corrugated fibre-cement sheets, which even today many consider as a somewhat primitive solution. Therefore, it is no wonder that Viggo Møller-Jensen was refused permission by the municipality to clad the first floor of his 1939 home with fibre-cement sheets. The municipality was of the opinion that these sheets would make the house look cheap.

Architects were frontrunners

Once out of reach for many, the detached family house became mainstream during the 20th century. And Realdania By & Byg's portfolio of houses demonstrates the transition from a traditional architectural style in the early part of the century, characterised by neo-classicism and Better Building Practices, over functionalism and functional tradition, to various forms of modernism in which architects were the first to come up with new trends in building techniques and ways of living. Architects experimented with new materials, new designs and new layouts for their homes. They were frontrunners with their own houses, and they created spaces and architectural expressions that, although we may not think twice about them today, were groundbreaking at the time. And this is precisely why Realdania By & Byg acquired these houses – the architects were working for themselves on their own houses, and thus they could realise their own architectural ambitions ■



The buildings of industrialisation

By **Anne Mette Rahbæk**, development director, Realdania By & Byg

Once in a while, a refreshing collection of new narratives arrives in the history of Denmark. They often reveal themes and areas which were previously considered unexceptional and had therefore been overlooked. This also applies for the history of Danish building culture. For many years, castles, cathedrals and manor houses were prominent, while more humble everyday buildings attracted much less in-depth attention.

Since the 1970s, industrial buildings and buildings associated with commerce and transport have gradually come more into the spotlight as an important part of Danish building culture. Among other things, a nationwide designation of significant regional industrial environments has been completed, and the government has also selected 25 national industrial monuments, which together illustrate Danish industrial history. The aim has been to maintain the physical traces for posterity, well aware that many have already been lost, and that industrial environment can be difficult to preserve, because it can be hard to find a new application for buildings now empty of their function.

The building culture of industrialisation is represented in Realdania By & Byg's portfolio of historical properties by a couple of urban historical industrial environments and a number

of buildings linked to the expansion of infrastructure that followed with industrialisation.

The development of industry and expansion of infrastructure

Clothing factories and textile production were established in Denmark as early as in the 17th and 18th centuries. This early industry is referred to by historians with the Danish word 'manufaktur', meaning craftsmanship production, but on a large scale. Unfortunately, Realdania By & Byg's portfolio does not include properties used for early industrial production in Denmark, but if you walk or cycle along the Mølleåen river north of Copenhagen, there are several good examples. For most historians, the height of industrialisation in Denmark spanned more than 100 years from the 1840s to the 1950s. In this period, towns and the landscape changed dramatically.

Primarily because of the boom in factory building. Small-scale industry sprang up around most Danish market towns. And more sizeable factories appeared around larger cities and ports. Industrialisation also brought an immense expansion of the infrastructure over all of Denmark. Until the first railway line was opened in 1847 between Copenhagen and Roskilde, ports and harbours were important hubs for transporting goods across Denmark and abroad. Road transport did not

Marcussen's Yard is an example of an industrial culture, which still today is the framework for an almost 200-year-old production. Organs have been manufactured here since 1830 and they still are.



become widespread until the 1930s. Expansion of lighthouses, harbours, railways and later the road network is therefore an integral part of Danish industrialisation. It is also important to note the changes in the urban landscape brought about by industrialisation. Labour moved to the towns and cities, and this triggered massive housing development. Open fields with grazing cows were replaced by densely populated urban areas with relatively poor quality homes.

Industrial architecture

From the 1820s, the high-rise factory buildings gave way to so-called flat buildings to facilitate

transport of materials, and with skylights, as industrial buildings took shape to suit the new production methods with installations for chemical or mechanical processes.

There was a wide range of architectural expression in the industrial buildings. It is almost as if, over the almost 100-year period, they have the same stylistic expression as the houses being built at the same time. In his article *Fabrikken som arkitektur i Nordeuropa 1770-1970* (The factory as architecture in northern Europe 1770-1970), Caspar Jørgensen (an expert on the building culture of industrial society) writes that,

The Foundries in Præstø. The saw-tooth roof allows the most light possible down into the long halls, and the zig-zag shape is typical for industrial buildings of that time.



for long periods of the 19th century, debate at the Danish Academy of Fine Arts centred on finding the right level of ornamentation on the private production installations being built. It may be difficult to understand today, but according to Jørgen Sestoft, who wrote about “the buildings of work” in the history of buildings published by Gyldendal in 1978, the 19th century understanding was that financial buildings should be built in the Italian Renaissance style, town halls with a Gothic guise and educational buildings should have a Romanesque style, which was also repeated in many industrial buildings. The function of the buildings determined their architectural style.

The first industrial buildings were entirely without symbolism or architectural design. However, the establishment of the Polyteknisk Lærestalt (a school of engineering) in 1829 strengthened the links between the builders, engineers and architects, and in both 1844 and 1855, small competitions were organised for the fledgling architects with a theme on constructing an

iron foundry. But ambitious private contractors would soon commission prominent architects of the time such as N.S. Nebelong, Bernhard Seidelin, Ferdinand Meldahl and Vilhelm Dahlerup, and later Anton Rosen, to design new industrial plants, e.g. for Carlsberg and Tuborg. Between 1911 and the 1930s, the Better Building Practices movement also made its mark, particularly on smaller buildings such as the electricity plants and dairies being built throughout Denmark. After the breakthrough of functionalism in the 1930s (also called the international style), Arne Jacobsen and others were involved in the design of Toms chocolate factories and Novo Nordisk pharmaceuticals factories. Other architects like Poul Henningsen, Sven Eske Kristensen and Kay Fisker also designed industrial buildings.

With regard to urban planning and development, in the 1940s Gladsaxe industrial district set new standards for urban planning of industry, with open, low buildings linked to good infrastructure. And well away from residential neighbourhoods.

Industrial districts and the idea of separating functions between housing, work and leisure was the dominant development after the Second World War. At the end of the 1960s, the then editor of the magazine *Arkitekten*, Poul Erik Skriver, questioned this separation between industry and housing, as he claimed that contemporary industrial plants were cleaner, less noisy and surrounded by lawns and green areas and they generally resembled public buildings.

From merchant’s houses and warehouses to close-to-town industry

The transition from craftsmanship to industry took place in most market towns over a longer period. The many small extensions and step-by-step changes were later cleared to make space for something new, so it is easy to overlook this gradual transition from merchant’s houses with yards trading in timber and goods to close-to-town light industry. Very often, all that remains is a well-preserved, elegant front house, while the yard behind has been torn down, although old drawings can tell us about the many changes in the building stock that have occurred over the years.

Marcussen & Son – a unique example of close-to-town light industry

This structure, with a front house and many changes and continuous development of the building stock behind, is evident in Marcussen’s Yard in Aabenraa (acquired by Realdania By & Byg in 2022). Fortunately, the buildings here have been left standing, so that today we can see the development of Denmark’s oldest organ builders over a 200-year period. The company has remained at the same address since the 1830, and it is an excellent and well-preserved example of how many smaller industrial enterprises located themselves close to towns in the early 19th century, and adapted their buildings to the changing needs of the company over time through extensions, new buildings, and conversions. The buildings are modestly decorated, and they are what they are: quality utility buildings made with selected solid materials.

The foundries in Præstø

The many foundries built in Denmark in the 1830s, and in the following decades, are inextricably linked with industrialisation and the use of iron for everything from stoves and pans to agricultural equipment and machinery for industrial production. Iron foundries were widespread throughout Denmark, including in Præstø (acquired in 2020). The factory was situated in what was then the periphery of the town. We can guess that the proximity to the stream was for practical reasons – both with regard to transporting goods to and from the foundry, and perhaps because of the fire risk and possibilities to use the water for cooling.

In contrast to Marcussen’s Yard, which grew organically over the years, the foundries in Præstø were built as such in their entirety in 1898. This is not the only difference between the two buildings. Whereas the ornamentation on the facades is only modest, or even non-existent, on the facades of Marcussen’s Yard there is Historicist decoration in the foundry. Iron columns in the main hall have leaf-crowned pilasters, and there is ornate and detailed brickwork around the doors and windows. The plant consists of production buildings with skylights, single-floor warehouses with completely open floorspace, and a foreman’s building with several floors.

Infrastructure: lighthouses, ports and railway stations

Industrialisation led to a dramatic and rapid expansion of the infrastructure in Denmark. Most of the commercial ports that came to play an important role during industrialisation are expansions of natural harbours that had been in use since the Middle Ages. Expansion of the lighthouse service and construction of the new ports also increased safety.

Skagen’s Grey Lighthouse

The new lighthouses built in these years included Skagen’s Grey Lighthouse (acquired in 2014), which Nebelong was commissioned to build in 1858. He came from an architectural tradition of

somewhat fixed rules for how buildings should be designed according to their function and importance, but the new building typologies of industrialisation meant that this tradition had to be rethought, and Nebelong was one of the frontrunners within the industrial architecture of the time. Besides lighthouses and beacons with associated buildings, he was also the architect behind Gammel Carlsberg and Copenhagen waterworks.

The Grey Lighthouse in Skagen was very modern for its time. The installation includes a dwelling for the head lighthouse keeper and his family, with space for assistant lightkeepers and their families. At times, almost 30 people lived in the building complex; a small community. The lighthouse remained in operation until 2013, when the head lighthouse keeper also vacated his house on the site. Realdania By & Byg acquired it the year after.

The Harbour Master's House

The expansion of Skagen harbour did not take place until half a century later in 1907. Skagen had built an important position within fisheries, and the expansion of the harbour increased the number of days on which fishing was possible. Trade in fish was better organised, with markets, packaging and transport of fish. The government therefore built a harbour master's house at the harbour (acquired in 2005), and warehouses that could be rented to Skagen's fish traders.

Skagen's Grey Lighthouse, and the Harbour Master's House in Skagen harbour are today both part of Realdania By & Byg's portfolio, and together they constitute a testament to the expansion of the marine infrastructure.

Gelsted Station

The first railway line in Denmark was established between Copenhagen and Roskilde in 1847. In 1856, it was extended to Korsør, followed in 1868 by the mainline on Funen from Nyborg to Middelfart. In parallel with this, the railway system was also extended in Jutland, and later spread all over Denmark, with many branch lines, most of which have now closed again. Gelsted Station (acquired in 2021) is located on the line between Odense and Middelfart, and it opened in 1911. It is a classic station building with the main building and its waiting room and ticket office on the ground floor; the stationmaster's quarters on the first floor; a storage building with loading bay facing the street, and a partially open connecting building, which gave shelter for waiting passengers. The building is easily recognizable as a station building, perhaps because it was designed by Heinrich Wenck, who was the official architect for DSB (Danish state railways) between 1891 and 1921, when he designed more than 100 station buildings throughout Denmark, including Copenhagen Central Station. Expansion of the railway network with its station buildings left a lasting mark on the development of the towns along the track.

Summary

The building culture of industrialisation extends over several centuries and includes factories, infrastructure and houses. Part of this building culture has disappeared or been converted for other purposes. Fortunately, there are still well-preserved examples from this significant period of Danish building culture, and Realdania By & Byg's portfolio includes examples of close-to-town industrial buildings such as a lighthouse, harbour master's house and a station building ■



Skagen's Grey Lighthouse, built in 1858, is one of Denmark's most iconic lighthouses. Realdania By & Byg has restored and refitted the installation as a birdwatching and nature centre in order to keep life in the historical buildings.

Administration buildings from Skønvirke to modernism

By **Anne Mette Rahbæk**, development director, Realdania By & Byg



The Rosen House, the old administration building of former brewing company Tuborg built in 1913, was designed by the architect Anton Rosen as a Gesamtkunstwerk in the Skønvirke style, the Danish counterpart of Jugendstil and the British Arts and Crafts style.

Up through the 1900s, prominent architects played an ever-greater role in commercial and industrial construction projects. In these projects, the administration building often received special attention from the developer as well as from the architect. The administration building was a showcase towards employees, clients and customers. The value of the administration building as a showcase was significant; it signalled what type of company was based there. Traditional? Modern? Closed off to the trends of the time or embracing them? The portfolio of Realdania By & Byg includes three administration buildings for successful Danish companies or organisations. The oldest of these buildings was built for one of Denmark's major brewing companies. The next-oldest was built for a credit association and the youngest for Denmark's leading glass wholesaler.

The three administration buildings reflect developments in organisational structures and workplace design, and they reflect the hottest new building materials of the time. All three buildings are still in use today as offices, lending their frames to modern working life.

The Rosen House

The Rosen House was built in 1913 to serve as Tuborg's administrative headquarters in Hellerup, home of Tuborg Breweries (acquired by Realdania By & Byg in 2007). The building was designed by architect Anton Rosen, hence its name. The building is heavy in detail and has a lavish interior in the Skønvirke style (the Danish counterpart of Jugendstil and the British Arts and Crafts style). Not many Danish buildings were in the Skønvirke style, and only very few have been preserved for posterity, so Rosenhuset today stands as an important example of Danish commercial building in the brief transition period from Historicism to Functionalism.

Anton Rosen was in many ways a "one-of-a-kind" architect in Danish architectural history. He was inspired by the British Arts & Crafts movement,

which, as a reaction to the poor working conditions and poor craftsmanship of industrialisation, promoted manual labour and good craftsmanship, as well as cooperation between the designer and manufacturer.

With its formidable brickwork structure and watchtower, the Rosen House evokes a mediaeval castle, and the vast roof surface, spanning two floors of the building, gives the building such an imposing presence in the surrounding cityscape that no-one could be in any doubt about its authority. The building radiates an exceptionally high standard in the choice of materials, as well as in its level of detail and craftsmanship. The overall expression is that nothing was left to chance. Throughout the building, hop flowers; ears of barley; the year of construction, 1913; and the initials TF, for Tuborgs Fabrikker, feature as ornamentation on everything from grates and drainpipes to lamps and paintwork. No dull standard solutions here. Everything was tailored specifically to the developer, Tuborgs Fabrikker. The pneumatic post system, the central heating system and the bicycle parking in the basement made the Rosen House a strikingly modern office block for 1913 – reflecting Anton Rosen's and Tuborg's world views.

Jarmers Plads

Almost 50 years after Anton Rosen designed Tuborg's administration building, expectation of a modern office block had changed dramatically. The years 1956-59 saw the building of a tall and slender marble-clad building at Jarmers Plads 2 (acquired by Realdania By & Byg in 2006). The developer was the building society Østifternes Kreditforening, which had built its first headquarters on the same site in Copenhagen in 1916. However, only years after it was erected, the first headquarters had to give way to the wide and multi-laned H.C. Andersens Boulevard and was replaced by the current tall, slender building situated directly adjacent to H.C. Ørstedsparken park. The new headquarters were designed by

the architectural firm Holst. The stringent building, which stands nine stories tall, was one of the first examples of an office building in the Nordic Modernism style – and a formidable example at that, with refined materials and finishes such as the marble-clad facade, interior wall panels of Oregon pine, mahogany window frames, and slender staircases with exquisite chrome railings. Unique and modern.

The headquarters includes an international-style nine-floor office building forming a wall against the busy boulevard, and a lower building with management offices, a staff canteen and meeting rooms looking out over H.C. Ørstedsparken park. The buildings were constructed with underground parking, large basements for storing the mortgage-credit bonds that were the basis of the credit association's business, lifts leading from the underground parking directly to the management offices and the porter's lodgings. Offices, conference rooms and reception area. The number of windows and the size of the hand-knotted carpets made it relatively easy to decode an individual employee's position in the organisational hierarchy. The modular design of the facade aligns rhythmically with the interior partitioning of the office space.

Glasalstrup

The ideal of Functionalism is spatial separation of functions. From the interwar period and onwards, this ideal was also applied to urban planning, which saw the designation of industrial areas on the fringe of cities and close to good infrastructure. One such area was established in the Hasselager suburb of Aarhus, where the glass supplier Glasalstrup constructed its new headquarters and storage buildings (acquired in 2018).

The storage buildings were constructed in concrete and were connected with the administration building via an underground tunnel. Two smaller buildings were also constructed and were used as offices for the executive management.

At the Rosen House, everything was tailored specifically to the developer, Tuborgs Fabrikker. The photo shows the centre room with its original, voluminous chandelier and a large beer barrel.



The administration building of glass supplier Glasalstrup from 1966 marked a new trend in concrete construction and office space planning in Denmark.



The buildings were laid out so that large batches of sheet glass could be transported by rail. The administration building is among the most striking examples of 1960s and 1970s commercial architecture. The building was designed by Knud Blach Petersen and was constructed in 1966 with cast-in-place concrete. The huge concrete grid that forms the roof of the structure is supported by a series of concrete columns, which make it appear as if the roof is floating one metre above a slender glass box. The discrete and visible contrasting structures represent a significant new turn in modernist architecture. The concrete grid is made up of 240 squares featuring a series of skylights, which allow daylight into the glass box, and it was originally constructed as an almost 1,000 m² office space free of columns with large floor-to-ceiling windows and square skylights incorporating an innovative ventilation concept. The room is one of the earliest examples of an open-plan office in Denmark, which in the 1960s was a new concept borrowed from Germany, although it was most widespread in the US. The administration building also served as a unique and impressive showroom for Glasalstrup, which sold glass to the construction sector in Denmark. The company held a significant market share and supplied much of the building glass used in the suburban expansion in Denmark during these decades.

Summary

Architectural trends stand out clearly in Realdania By & Byg's portfolio of administration buildings – from Skønvirke to the monumental Brutalism of the Glasalstrup building from 1966. However, equally interesting is to see just how important it was to come across as a modern company and organisation through the architectural design of a headquarters building. That these buildings function as modern workplaces for modern businesses today is a signal that good architecture can provide a unique and attractive architectural space, across time and independently of changing styles and trends ■



Building development projects

Realdania By & Byg also works on construction of new, experimental buildings that can contribute new knowledge to the construction industry. In these projects, Realdania By & Byg examines at full-scale how to minimise carbon emissions, how to build efficiently and with less resources, how to incorporate new buildings into historic urban environments, or how to optimise the built environment for human health and ensure the best indoor climate.



2016-2019
Lille Langebro,
Copenhagen



2010-2015
Multi-storey car
park, Dokk1,
Aarhus



2006-2018
BLOX, Copenhagen



2013
The Modern
Seaweed House,
Læsø



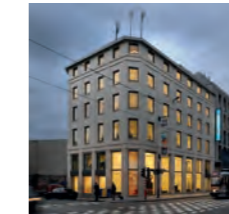
2019-2021
Icefjord Centre,
Ilulissat, Greenland



2008-2010
Home Energy,
Tilst



2012-2013
The MiniCO2
Houses, Nyborg



2012-2013
Philanthropy
House, Brussels,
Belgium



2013-2015
BOLIG+, Søborg



2016-2017
Healthy
Homes,
Holstebro



2017-2020
Communal
Housing for
the elderly,
The Nature
District of
Ringkøbing



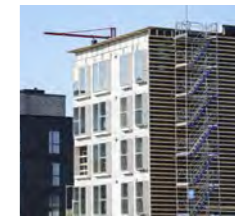
2018-2019
Out-of-place
buildings in
Danish towns
and cities,
Faaborg



2018-2022
Healthy
Homes -
Renovation,
Randers



2019-
The MiniCO2
Multi-storey
Buildings,
Fredericia



2020-
Efficient
Buildings,
Fredericia



2006-2010
Tietgen's Agony,
Copenhagen

2004-2006
Bispebjerg Bakke,
Copenhagen



2016-2019
Oluf Baggers Square, Odense

Urban development projects

By taking co-ownership of urban development projects, for the most part in partnership with local government, Realdania By & Byg is helping find concrete solutions to challenges faced by the cities of the future. These are long-term investments with focus on finding high-quality solutions that enrich the city as a whole – and not just the land being developed.



2008-
The Canal District in Fredericia



2013-
Nærheden, Hedehusene

2010-2016
The Kvæsthus project, Copenhagen



2009-
Køge Kyst, Køge



2011-
The Nature District of Ringkøbing



2012-2016
The Sankt Annæ Project, Copenhagen



Under establishment
Nørreport, Aabenraa

Realdania By & Byg Klubben

The Realdania By & Byg members' club disseminates knowledge about Realdania By & Byg's portfolio of historical properties to enlighten Danes and engage them in our shared building culture.

Some of the club members themselves live in a historical house in the countryside, or they own a modernist house in the suburbs. Others rent a flat in a modern urban neighbourhood or live in a terraced house. Some of the members are young, some are adults, and some are pensioners, but they all share the same interest and appreciation of design, architecture, history and our shared building culture.

When asked, members emphasise that they value the opportunity to meet presenters who share their expertise about a certain building, and talk about what makes it unique and noteworthy, and about the architectural design, history, materials and restoration process associated with the building.

Furthermore, they appreciate the opportunity provided by Realdania By & Byg to access buildings and places that are otherwise not open to the public.

Membership of Realdania By & Byg Klubben costs **DKK 199 per year** and tour tickets start at DKK 75. The price depends on the number of participants on the tour. There is a student discount.

The only other requirement for joining the club is an interest and desire to experience our shared building culture.

A membership of Realdania By & Byg Klubben provides:

- Access to a wealth of knowledge and stories, presented by expert tour guides
- A hardcover yearbook, sent by post each year in December, featuring articles about Realdania By & Byg's projects
- Discounts on all Realdania By & Byg's books about the individual properties in Realdania By & Byg's portfolio
- Access to more than 150 events annually throughout Denmark
- Access to online tours, allowing you to participate from the comfort of your own home
- The possibility to bring a guest at a reduced club price

For more about prices and membership, see the Realdania By & Byg Klubben website at www.realdaniabyogbygklubben.dk



Photos

Kurt Rodahl Hoppe: Pages 2, 3, 10, 32-33, 34, 37, 40, 41, 48, 53, 55, 56 top left, 62-63, 66, 70-71, 73 top

Helene Høyer Mikkelsen: Pages 13, 46, 50, 52 top, 65

Jan Knudsen: Pages 18, 20-21, 23, 69

Mark Syke: Pages 16, 24-25, 28

Per Munkgård Thorsen and Lars Degnbol: Pages 7, 8, 26, 30

Kira Ursem: Front page, page 32 left

Kim Høltermand: Pages 35, 60

Lars Gundersen: Pages 56 top right, 56 bottom left

Adam Mørk: Page 58

Det Kgl. Bibliotek – Danmarks Kunstbibliotek: Page 29

Jens Markus Lindhe: Page 56 bottom right

Jørgen Jensen: Pages 38-39

Dennis Lund: Pages 74-75

Danish Agency for Data Supply and Efficiency: Page 20 left

Ulrik Pedersen: Page 83

Realdania By & Byg: Pages 4, 14, 51, 52 bottom, 61, 72-73, 80-81

Photos on timeline and in collages pages 76-79

Anders Sune Berg, Helene Høyer Mikkelsen, Jakob Bekker-Hansen, Jan Knudsen, Jens Markus Lindhe, Jesper Ray, Kira Ursem, Klaus Willis Andresen, Kim Høltermand, Kurt Rodahl Hoppe, Lars Gundersen, Martin Håkan/Coverganda.dk, PalmePHOTO, Per Munkgård Thorsen og Lars Degnbol, Steffen Stamp, Susanne Eeg Rumspringa, Søren Svendsen, Tine Binau/NærHeden P/S, Realdania By & Byg, and others.



Realdania By & Byg's historical properties 2003-2023

Realdania By & Byg A/S, 2024

This book was published in Danish in 2023 and translated into English without updates in 2024.

ISBN: 978-87-93746- 86-2

Text by the authors referenced and Realdania By & Byg

Edited by Realdania By & Byg

Translated by GlobalDenmark A/S

Design Mouret

Printed by OAB-Tryk ApS, Odense

Realdania By & Byg

Jarmers Plads 2, DK-1551 Copenhagen V

Nørregade 29, DK-5000 Odense C

Tel.: +45 70 11 06 06

info@realdaniabyogbyg.dk

www.realdaniabyogbyg.org

Since its foundation in 2003, Realdania By & Byg has built up a portfolio of more than 60 historical buildings across Denmark. Together, they illustrate the development of Danish building culture over 500 years: in terms of architecture, materials, building techniques and functions.

This book marks 20 years of work by Realdania By & Byg to acquire, preserve and showcase the historical properties. Through interviews, essays by experts and articles about the various building topologies in the portfolio of properties, this book describes the portfolio and the shared Danish building culture it represents.