Welcome to a new issue of Copper Forum

Over the years, Copper Forum has followed and reported from different building projects that were competing for the Copper in Architecture Award. This autumn it is time again to select a winner. It has been a difficult task for the jury to pick out the five nominees from the about 50 competing building projects from different parts of Europe. These five nominations will go on to the final competition, and the winning project will be announced at a ceremony in London on September 29, 2009. In this issue of Copper Forum we will present all the nominated projects.

We will also acquaint you with Spanish artist José Antonio Antoli Segura, who has used copper in his artwork for a long time and developed special techniques for surface treatment and shaping the metal.

We have visited some exciting building projects in Poland and Finland, where copper has contributed to the successful final results. Furthermore, we will report from a newly built copper façade in Ventspils, Latvia, where different types of perforation techniques bring out unique architectural effects.

I hope you will have some interesting and stimulating reading. As always, we welcome your thoughts and suggestions to what you would like to read about in future issues of our magazine.

Leenart Engström, Editor

Copper Forum, September 2009

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The nuns are self-sufficient multi-skilers

From the very beginning the Pühtitsa nuns, currently numbering approximately 150, have secured their livelihood and looked after visiting pilgrims through their own work and self-sufficiency. They grow vegetables and fruit, sow crops and preserve mushrooms and berries. There is also a cattle farm to produce dairy and other animal products. Pühtitsa is widely recognized as an interesting area, well known to the Estonian Orthodox and foreigners alike. The convent has a lot of visitors as the place is of interest to scientists, culture and art enthusiasts, students and foreign tourist groups. The convent area, where old customs and a long tradition of charity still prevail, is always open to the public.

The convent – dedicated to the Dormition of the Mother of God – was established in 1891 on the site of revelation of the Mother of God in the 16th century. The Orthodox built a small wooden chapel there and it was called Pühtitsa, “a holy place” in Estonian. Pilgrims from all over the world have been visiting the place for three centuries. A new, bigger church was built next to the wooden chapel in 1885, called Uspenie Church, which became the centre of the first Pühtitsa Orthodox Parish. There was also an Uspenie women’s community, which shortly developed into a convent.

Leaking roofs replaced with copper

The Pühtitsa Convent has six churches still in active use. The designs for the convent were originally drawn by Mihail Timofeevich Preobrajenski, Academician from St Petersburg, and the architectural and constructional work was run by Alexander Poleschuk, born in Saxemia. Since some of the buildings had been built in the previous century, the old sheet metal roofs had rusted and were badly in need of repair. Constant patching was extremely difficult, and only helped for a short time, so re-roofing was essential.

“The ordinary sheet metal that used to cover the roof was susceptible to corrosion and needed constant repair and painting. At the same time the domes also had to be painted, which was neither simple nor safe. Copper was selected as it is durable and requires no paint”, says Mother Varvara, Mother Superior of the convent for over forty years. This time, four of the six convent churches were re-roofed with Finnish copper. All the buildings have different shapes and materials, some with painted wood and stone on the façades. Therefore the selection copper colour required careful consideration. The dark Nordic Brown copper was chosen for the Cathedral of the Dormition of the Mother of God, Uspenie Church and the Church of St Elijah the Prophet in Vasknarva.

In contrast, Nordic Green was installed on the Church of St Nicholas and the Church of St Sergius of Radonezh. Installation of the roofs was carried out by a group of Russian sheet metal workers and the architectural work was run partly by Mr Melnikov, Manager. The demanding two-year project has just been completed and convent life has now returned to normal. The convent is an interesting place to visit and the nuns’ diligence can be seen everywhere throughout the vast area – in the well-preserved buildings, beautifully kept gardens and neatly stacked firewood.
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Pavilion in Hoover Square, Warsaw

A subtle new building is used to organise a neglected space and transform it into an attractive public square within a garden setting.

Herbert Hoover Square (Plac Herberta Hoovers), although not widely known by this name, is the historic centre of Warsaw – a green enclave situated at the widest section of Krakowskie Przedmieście, between the Mickiewicz Monument and the statue of the Blessed Virgin Mary of Passau. In spatial terms, the key decision was to situate an elongated square, depressed below Krakowskie Przedmieście, between the historical monuments. This clear arrangement made it possible to establish a better relationship between the garden, square and the street running at two levels around it.

A range of new facilities – a café pavilion, kiosk, public conveniences, an underground restaurant and gallery – are embedded in the layout of the existing and newly-built stone walls. “Water steps” closing off the square to the south allow the Mickiewicz Monument to blend into the composition of the square. The roof of the pavilion, held between fascias clad with copper mesh, appears to merge with the cut hedge “brushes”. It is designed to look as if it had always been there or, perhaps, as if it were not there at all. The 15-metre wide glazed wall of the pavilion, opening up fully in summer, will integrate the square with the interiors of the building.
Project: Warszawa, Skwer Herberita Hoovera
Completed: 2008
Client: Zarząd Terenów Publicznych
Architect: JEMS Architekci, Warszawa
Main contractor: Mostostal Warszawa
Copper installer: KREST METAL, Niepołomice
Copper supplier: TECU® Net, from KM Europa Metal AG, Osnabrück, Niemcy
Photos: JEMS Architekci
A Major Corporate Headquarters for Copenhagen
As this issue of Copper Forum goes to press an exciting new building near Copenhagen’s harbour is under construction. The 27,100 m² SEB Bank & Pension headquarters at Kalvebod Brygge was designed by architects Lundgaard & Tranberg. The facades of the SEB building have full storey-height glazed sections in a varied composition of copper-clad recessed openings, totalling some 9,000m² of copper.

Architects Lundgaard & Tranberg have already distinguished themselves in recent years with several outstanding buildings in Copenhagen which include copper facades as an integral part of the design, including:

- CBS “Kilen” (2005) – facades with movable shutters in copper alloy
- Tietenkollegiet (2006) – facades in copper alloy
- The new theatre building (2008) – stage tower clad with copper
Sunset in the land

The fight (detail)
Copper in Art – Perspectives from Spain

Artist José Antonio Antolí Segura (born 1950, Castellón de la Plana, Spain) possesses broad professional experience consolidated by over 25 years as a craftsman working with different metals. Using iron and copper over this time, he has expressed the force which metal provides to surrounding environments, like a genuine jewel placed in the space. His latest public work, “Jardín metálico” [Metal Garden], created for the Provincial Office of Culture of the Autonomous Region of Valencia, is an example of this.

His copper pieces (commissioned by institutions, architects, interior designers and private collectors) are found in several private collections and public spaces. Amongst these are the foyer mural of the Mari Claire offices, the interior design of the Logos Pub in Castellón, various murals in the United Arab Emirates and, combining his metalwork with sculpture, the “Drac” tables and the “Estrella Solar” painting.

He has also participated in various festivals including:
- Barcelona – Iron Horse Sculpture.
- Valencia – Fittings and decorative elements in copper.
- Dubai – Metal Art – Paintings and Linings – “Cobretexturas” [Copper Textures].
A vision for copper
Here, he sets out his vision for expanding the use of copper in art and design throughout Spain and beyond.

“Spain has always had a craftworks market of copper objects for daily use, especially in Andalusia, but the artistic and decorative expression as an architectural and expressive element has not enjoyed special relevance. For years, we have focused our efforts on making presentations at interior design offices and architectural firms through personalised visits.

“In our family-owned company, my sons (one an architect and the other a publicist) join forces with me to develop the technical aspects of my creations, “cobretexturas”, working out the details, analysing projects and fleshing out my new designs in both 2D and 3D. Another side of our work is focused more on ELDRAC’s diffusion through publicity activities, and we aim to reach the foreign market, specifically addressing the Persian Gulf companies. The good artistic reception in these countries has given rise to an exposition in Dubai and contracts with hotel chains which have begun to request my work. The immediate principle objectives are to consolidate exhibitions with galleries and to participate in art festivals nationally and internationally.

Working with the copper industry
“Our company is prepared to collaborate with the copper sector in various ways. We are looking for a joint initiative with companies associated with copper in order to disperse knowledge about this to universities, in technical careers such as architecture, engineering and design. We hope to explore tenders or competitions in these universities for the execution of some research projects in varied fields of the material’s application. We would also like to launch a national copper festival and promote the material in the media highlighting its qualities, such as recyclability, durability, malleability and sustainability.”
Seafarer’s Strand Housing in Lauttasaari

The planning of this coastal area of Helsinki resulted from an invitational competition organised in 2002. Building activities started with the town block in 2007 and the first units completed in the autumn of 2008. The central theme of the winning entry was to extend the harbour atmosphere of the east shore of Lauttasaari and to plan the block layout so as to provide as many apartments as possible with sea views and optimum orientation towards the sun. Another important objective was not to block the views from the existing residential buildings.

The solution is based on rod-like buildings standing perpendicular to the shoreline. The buildings closest to the shore are low-rise and partly supported on columns so that they extend over the sea. The storey height of the buildings then increases in stages with greater distance from the shore. The area is divided into zones parallel to the shoreline; the first zone contains public piers and a pedestrian area, followed by a green yard zone, a free-form zone of paved yards, a green lane and then the street area. A parking garage under the courtyard provides parking space for 272 cars.

The main facade materials include light-coloured render and copper. The rear walls and roofs of balconies as well as the underside surfaces of cantilevered structures are wooden.

Apart from essentially flexible layouts, the key elements emphasised in the design of the 230 or so apartments – which vary in size between 50 m² and 130 m² – are lightness, spaciousness and views. Large balconies and roof terraces further increase the potential to enjoy the magnificent location of the area.
Sigurd Frosterus (1876–1956) took part in the design competition of Stockmann department store in downtown Helsinki in 1915–16. His entry “City 1926” won the second prize. The winning entry was submitted by Wather and Ivar Thomé as well as Urho Åberg, and Eliel Saarinen came third. But with Wather and Ivar Thomé killed in the Civil War, the design assignment was awarded to Frosterus. The department store was built in stages, and the present 8-storey building was completed in 1930.

Sigurd Frosterus and Eliel Saarinen were designers of the same era, and both their architectural styles can be studied in the framework of the architecture at the turn of the century.

The form language of Eliel Saarinen’s early works is dominated by national romanticism, while the works of Sigurd Frosterus reflect the more abstract, structural form language typical of Central Europe. The office block beside the old church of Helsinki as well as the residential buildings in Töölö are examples of Frosterus’ works characterised by this feature.

Stockmann’s designs also show the same influences. Frosterus kept the form language unchanged during the long design and implementation stage, despite the rise of functional constructivism in both international and national architecture in the 1920s and 1930s.

The form of Stockmann in the townscape and the spatial structure of the building together with the materials create the base for the activities carried out in the department store. Stockmann has become a central commercial-public space in its location and the buildings round it, whether built before or after the department store, constitute a significant part of everyday life in the downtown area of Helsinki. The building also supports the operations of the department store, which are significant at Scandinavian level.

Stockmann department store was expanded in 1989 on the basis of designs produced by Kristian Gullichsen and Timo Vormala.

The department store is now undergoing renovations. Large-scale remodelling and expansion works are being carried out in the town block with the department store remaining in full use. The main designer of the project is architect Pekka Laatio. The progress of the construction project is visible externally in the form of the new copper roof that stands as witness for renovation works on the top floor.
The renovation project carried out in the Cathedral of Turku toward the end of the 1970s was designed to complement the restoration project realised in the 1920s. The main objective of the project was to improve the technical performance of the building. One of the most important tasks was to enhance fire safety, particularly with respect to the attic spaces and the tower. Roof structures were found to be in poor condition and constituted a fire risk, and were replaced by new structures made of pressure impregnated glulam. The attics, which had previously formed a completely open space, were compartmented with firewalls and the tower with fireproof intermediate floors.

As a result, the copper roofing installed after the big fire in Turku was replaced. At the end of the project everybody involved in the repairs received a memento plate made of the old metal. The old copper was also analysed and found to contain some impurities – but also silver and gold, which were separated and stored in the vault of the parishes. The gold was retrieved for re-use when a new baptising bowl was needed for the cathedral chancel some years later. The bowl was created as a hemisphere standing on steel feet supported on a limestone base. The internal surface of the bowl is gold and a golden cross was sculpted in the centre of the bottom. A removable glass dish for baptising water fits inside the bowl.

The old silver was also needed when a small crucifix - received as a gift and placed on the main altar - did not fully satisfy the needs of officiators at church ceremonies. The image of Christ crucified on the crucifix poured in bronze consists of three pieces of bent silver bar. While it is unusual for architects to be asked to design artefacts such as these, my long-term involvement working on the Cathedral persuaded me that it was right to do so.

Turku gained the status of the capital of the Grand Duchy of Finland in 1809. Prior to that the French Emperor Napoleon and Russian Czar Alexis I agreed, in Tilsit in 1807, to separate Finland from Sweden and make it part of the Russian Empire. Then, in 1812, the rights of the capital were assigned to Helsinki.

Most of the original houses in Turku were of wooden construction. The largest fire in the history of Finland – and indeed the whole of Scandinavia – raged in Turku in 1827, leaving some 11,000 townspeople without homes. It was after this fire that the roof of Turku Cathedral was covered with copper, although shortly afterwards, in 1868, the roof covering was replaced because of the poor quality of the original work.

This copper roofing was renewed in the 1970s as part of an on-going renovation project. Architect Ola Laiho has been involved in the design of the Cathedral’s renovation works throughout various stages. His work, including a number of sculptural artefacts, has produced high quality church renovation architecture influenced by modernism.

Esko Miettinen, architect SAFA.
The image of crucified Christ, made of silver separated from the old copper roofing and presented in 2009.

Dismantling of old copper roofing and erection of new copper roofing during the renovation carried out in the 1970s.

The new copper roofing of the Cathedral covered with snow.
Organic Growth of a School at the Heart of the Community
In 1896 Lahti Town was just a typical country village with about 3000 inhabitants living in small wooden houses. The villagers had the idea of starting a local secondary school - an ambitious plan at that time, but which was soon implemented attracting industry, such as a brickworks, and employment to the village. Lahti Coeducational School has since expanded and been modernised over and over again with a consistent use of copper, and remains one of the most highly achieving senior secondary schools in Finland.

Expansion throughout the century

Today the school complex comprises two buildings, the older of which is the original school designed by Vilho Penttilä, Architect, and completed in 1898. It represents the old Finnish Jugendstil style and is known as the "Museum". Construction of the more recent "Wing" building got under way in 1957. Today this building consists of parts built at six stages with different architects. The first stage was designed by Kaarlo Könönen, the second, third and forth by Jorma Salmenkivi and the fifth and sixth by Leena and Seppo Lappalainen. Lahti Coeducational School is still a privately funded institute. The school complex is among the most significant buildings in Lahti together with the adjacent Ristinkirkko Church designed by Elisa and Alvar Aalto.

Addressing the challenge of a multi-form roof

The "Museum" was renovated between 1995 and 1996 by Leena and Seppo Lappalainen, Architects, with a degree of care and respect not often found on educational buildings. Copper is the only exterior metal cladding on the redbrick school building. To guarantee its successful replacement, all the metal cladding was photographed and documented in measured drawings. A particular challenge – to the designers and builders alike – was the multi-form roof, especially the pointed steeple with its copper-shingle roof and an almost four-meter high spire on the top on the southeastern corner of the building. When it was time to extend the "Wing" again at the beginning of this decade, it was clear from the very first stages of design that the building materials should be the same as in the earlier construction phases – both on the facade and in the interior. So, the metal cladding on the façades is mostly of copper combined with extensive areas of red granite.

Today, Lahti Coeducational School is a successful combination of new and old. Although the styles of the buildings originate from different eras and are not alike at all, the general impression is of well-balanced organic growth due to the consistency of materials and colours used. Squeezing a large new extension onto the existing corner plot was a real accomplishment and a great example of how expertise and respect for the past can be used to create a harmonious complex of buildings dating back to different eras.
A new library building in Latvia makes extensive, ambitious and intriguing use of perforated copper technology both inside and out, including a stunning graphic display of lyrics by the father of Latvian folk songs, Krisjānis Barons.

The Town of Ventspils in Latvia consists of two fairly independent parts separated by the River Venta with a single bridge crossing it and the right bank is known as Parventa. For this reason, the town duplicates several cultural and sports facilities. Now Parventa has its own new library with an exceptional curved façade composed of unique perforated copper cassettes. The Parventa library building was designed by INDIA, a Riga architectural office headed up by Ivars Kalvans and Peteris Jajars.
Writing on the walls

Their vision sought to incorporate the heritage and tradition of Latvia into a modern design. As copper has been used on some of the oldest churches, museums and other important buildings in Europe for centuries, the city representatives wanted copper walls for the library. The material was ordered from Luvata Pori Oy, a Finnish company, renowned for its skill and expertise in copper as well as its modern “Nordic Systems” products. Individually perforated cassettes were ideally suited to the architects’ ambitious idea of writing the lyrics of a Latvian folk song on the walls! Every cassette was separately manufactured and unique. The biggest challenge was to design the perforation layout to recreate the lyrics and verses of the folk song when laid correctly on top of one another.
The library’s modern appearance

The abundant design potential of copper has been fully utilized in this thoroughly modern building. The curved plan shape of the façade was easy to achieve thanks to the malleability of copper. The skillful use of perforation technology creates a modern appearance to complement more typical uses of copper. There are endless opportunities for creative architectural design, as even the wildest ideas can often be realised with copper and Parventa library is a particularly exciting example.

Some 750 m² of 1.5mm thick copper was used on the façade. Luvata Pori Oy supplied ready-made specially perforated cassettes to the site and installed by Pilsbuve, the main contractor. Installation of the cassettes was a real challenge but the combination of copper and glass creates a beautiful result. The total area of the library is 1500 m² on three levels. Construction began in April 2008 and will be completed this summer.
Project: Parventa Library, Latvia
Architects: INDIA Architects, Latvia
Main contractor and copper installer: Pilsbuve
Over the years, Copper Forum has featured the Copper in Architecture Awards and witnessed their transformation from a British-based programme just highlighting craftsmanship, into the important design-led competition for projects across Europe that we see today. For the first time, the 2009 Awards now consider all entries together to select the very best in contemporary architecture from across Europe.

With almost 50 entries from 16 countries, the 2009 Awards reveal an exceptional diversity of projects – many not yet published or well known. Five quite different buildings – a media centre, museum, urban housing complex and two very different individual homes – have now been shortlisted by the panel of judges. Over the next few pages, architect and consultant to the European Copper in Architecture Campaign, Chris Hodson reviews the shortlisted projects, in no particular order, as well as others that particularly interested the judges.

The winning projects will be announced at a presentation in London on 29 September this year and, of course, reported in the next issue of Copper Forum. More information on the European Copper in Architecture Campaign, the Awards and numerous project references from around Europe can be found at: www.copperconcept.org
JUDGING THE AWARDS

The growing group of architectural critics and architects actively involved over recent years demonstrates the status that these Awards have now attained within the international architectural community. Taken from this group, the 2009 Awards judging panel was:

- **Paul Finch**, (Chairman of the Judges), Director of the World Architecture Festival and just appointed as the new Chairman of the Commission for Architecture and the Built Environment (the UK Government’s advisor on architecture, urban design and public space).

- **Einar Jarmund of Jarmund Vigsnaes as Arkitekter** – designers of the Svalbard Science Centre, Norway (Highly Commended, Europe, 2007 Awards) – 1

- **Simone Solinas of Solinas Verd Arquitectos** – designers of the Vicar Theatre, Spain (Highly Commended, Europe, 2007 Awards) – 2

- **Laurence Bain of Bain and Bevington Architects**

- **Shane de Blacam of de Blacam and Meagher**
  – designers of the Dublin Mews Houses, Ireland (Winner, 2002 Awards) – 3

- **Craig Casci of Hamiltons**
  – designers of Brewery Square, UK (Winner, 2003 Awards) – 4

- **Keith Williams of Keith Williams Architects**
  – designers of the Unicorn Theatre, UK (Winner, UK, 2007 Awards) – 5

- **Catherine Slessor**, Managing Editor of The Architectural Review.

All the entries were assessed by this panel of eight judges from photographs, drawings and descriptions submitted by their designers. Initially, judges independently considered each entry before discussing specific projects that could move forward to the next stage. Then, selected projects were openly debated and the shortlist of five agreed unanimously. This judging process by an international panel served to confirm that the language of architecture is universal and design excellence knows no borders.
The Clip House in Madrid, Spain – designed by Bernalte-León y Asociados – is a highly sculptural design defined by sinuous curving bands of copper cantilevered from a vertical concrete spine and enveloping the main spaces. The design concept reflects the international life-style of its owner rather than making any response or concessions to its suburban setting. Internal spaces for living, work and sleep flow freely, served by top-lit circulation within the concrete spine.

Expansive diffused glazing infills between the copper bands flood the spaces with light while clear glazed panels just to the narrow frontage and subdividing internal spaces allow views through. The dramatic copper bands, made up of numerous small pieces of copper and lined internally with timber, form a continuous skin of the house, shaping the architectural spaces, occasionally breaking through to the inside. They can also be seen as a graphic device – perhaps reflecting the client’s background in advertising – and part of the simple language created by the interplay of different materials.
ARCHITECTURAL AWARDS SHORTLIST

MAKING A STATEMENT THROUGH DESIGN
The second individual home to be shortlisted - the Ticino House in southern Switzerland – couldn’t be more different. Davide Macullo Architetto’s sensitive design responds to its beautiful rural setting and makes the most of a sunny hillside with outstanding views.

A cave-like entry at the lower level is sheltered by the landscape with service spaces set into the hillside. The simple square plan of the main living areas above is pierced on each side by the landscape, forming protected courts and breaking up the building into small monolithic volumes. This grouping reflects a cluster of typical rural buildings that once stood on the site and the new house follows the original building’s footprint.

A modular, formal arrangement of copper mesh panels characterises the building’s external skin, protecting the timber envelope and screening large areas of glazing. Other building elements are clad in copper sheet as part of a restrained palette of sustainable materials.
INTEGRATING LANDSCAPE AND HOME
RESPONDING TO HISTORY

The Archaeology Museum of Vitoria in Spain shares a courtyard with the historic Palace of Bendaña, closing off the space and replacing the backs of other buildings. The design makes extensive use of cast bronze elements to create contrasting elevational treatments. From outside, continuous vertical fins create an impenetrable wall with a few, deep-set windows, while the glazed courtyard facades are screened with a strong vertical matrix.

The overall effect is of an ageless fortress in an urban setting, revealing more of its nature and growing increasingly open as you approach and enter the courtyard. The architects, Mangado y Asociados S.L., describe the building as ‘a compact jewel box concealing the treasures that history has entrusted to us’. This theme is carried through with conviction to the dramatic exhibition spaces where white, glazed daylight prisms pierce through the dark floors and ceilings, with thick outer walls containing the exhibition displays.
In Copenhagen, Denmark, the Frederikskaj Housing project makes the most of its harbour-side location with 152 light and spacious apartments overlooking the regenerated canal district. Apartment layouts are flexible, extending outside onto generous balconies, with full-height glazing maximising daylight and views. Social living is concentrated around a new canal and well-designed landscaping, creating a link to the harbour: the building literally has its feet in the water.

Dissing+Weitling arkitektfirma’s cool design uses quality materials reflecting nautical references – textured and flat copper, hardwood windows and glass – but in a thoroughly modern way. The understated but beautifully detailed copper skin gives the building a solidity in dialogue with its concrete frame that is entirely appropriate in this commercial area. The architects see the building as ‘like a luxury liner, docked in the harbour’ – a slickly designed, unified entity.

This project was also discussed in the last issue of Copper Forum (26/09, page 10)
SHAPING THE URBAN ENVIRONMENT
The Mediacomplex 22@ project resulted from a partnership between the city of Barcelona, 22@ – an organisation for the development of new technologies - and a commercial company. Its pivotal location sees Barcelona’s orthogonal grid intersect with the Avinguda Diagonal – an area with an industrial heritage. The project brings together a diversity of activities including research, teaching, production and creativity – all associated with the audiovisual world.

The design, by Patrick Genard y Asociados and Ferrater & Asociados, responds directly to the strong local urban framework while meeting the complex programme and is divided into two, polarized elements. The Factory is a solid, horizontal block, aligned with an existing 19th century industrial building as a simple continuation. In contrast, the vertically orientated Tower expresses in its plan the changes in street pattern below. The Factory is opaque and smooth with panels of perforated copper filtering the daylight while the Tower presents a strong vertical grid of deeply recessed, copper-faced screens shading the glazing. But both elements share common proportions and extensive use of copper as a unifying material.
ARCHITECTURAL AWARDS
DIVERSITY WITH COPPER

Although not selected for the shortlist, these four projects generated particular interest and debate amongst the judges. They are also a further demonstration of the real diversity of building types and architectural styles where copper - in all its forms – plays a central role.

The Royal Playhouse, designed by Lundgaard & Tranberg Arkitekter, is an important and iconic public building on the harbour front in Copenhagen, Denmark. The main tower is clad in horizontal copper panels set in different planes which is already creating patination at different rates, bringing this monolithic form to life. (1)

Herbert Hoover Square in Warsaw, Poland, is an attractive public space in a garden setting. JEMS Architeckci’s design centres on a new pavilion accommodating a range of facilities and embedded in the network of stone walls. Copper forms part of a limited palette of high quality materials, including a copper mesh fascia intended to reflect nearby trimmed hedges. (2) This project is discussed in more detail on page 4.

Borgarfjørdur College, Borgarnes, Iceland is a community facility in a dramatic setting, with a strong cubic design by Kurtogi Architects. Brass was chosen for the external cladding for its colour which resonates with local natural stone. The random pattern of brass cladding on the simple rectilinear facades also echoes the juxtaposition of irregularity and formality seen in the surrounding rock formations. (3)

The Finnish Wooden Boat Centre on Ko-tkansaari, Finland includes a dramatic parabolic roof clad in pre-patinated copper. The design, by architects Lahdelma & Mahlamäki Oy, is specifically for boat building and restoration. But, apart from practical considerations, the simple, curved shape is reminiscent of an upturned boat, reinforced by the use of copper with its strong nautical heritage. (4)

More information on the European Copper in Architecture Campaign, projects from the 2009 and previous Awards, and numerous other project references from around Europe can be found at: www.copperconcept.org
Copper Convent

Four very different churches at the famous Pühtitsa convent in Kuremäki, Estonia, have now been re-roofed in copper to solve long-term technical problems.
Welcome to a new issue of Copper Forum

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We will also acquaint you with Spanish artist José Antonio Anteló Segura, who has used copper in his artwork for a long time and developed special techniques for surface treatment and shaping the metal.

We have visited some exciting building projects in Poland and Finland, where copper has contributed to the successful final results. Furthermore, we report from a newly built copper façade in Ventspils, Latvia, where different types of perforation techniques bring out unique architectural effects.

We hope you will see some interesting and stimulating reading. As always, we welcome your thoughts and suggestions to what you would like to read about in future issues of our magazine.

Lennart Engström, Editor

Copper Forum, September 2009

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Leaving roofs replaced with copper

The Pühtitsa Convent has six churches still in active use. The designs for the convent were originally drawn by Mikhail Timofeevich Preobrazhenski, Academian from St Petersburg, and the architectural and constructional work was run by Alexander Poleschuk, born in Saarema. Since some of the buildings had been built in the previous century, the old sheet metal roofs had rusted and were badly in need of repair. Constant patching was extremely difficult, and only helped for a short time, so re-roofing was essential.

“The ordinary sheet metal that used to cover the roof was susceptible to corrosion and needed constant repair and painting. At the same time the domes also had to be painted, which was neither simple nor safe. Copper was selected as it is durable and requires no paint”, says Mother Varvara, Mother Superior of the convent for over forty years. This time, four of the six convent churches were re-roofed with Finnish copper. All the buildings have different shapes and materials, some with painted wood and stone on the façades. Therefore the selection copper colour required careful consideration. The dark Nordic Brown copper was chosen for the Cathedral of the Dormition of the Mother of God, Uspenie Church and the Church of St Elijah the Prophet in Vasknarva.

In contrast, Nordic Green was installed on the Church of St Nicholas and the Church of St Sergius of Radonezh.

Installation of the roofs was carried out by a group of Russian sheet metal workers and the architectural work was run partly by Mr Melnikov, Manager. The demanding two-year project has just been completed and copper life has now returned to normal. The convent is an interesting place to visit and the nuns’ diligence can be seen everywhere throughout the vast area – in the well-preserved buildings, beautifully kept gardens and neatly stacked firewood.

The nuns are self-sufficient multi-skilers

From the very beginning the Pühtitsa nuns, currently numbering approximately 150, have secured their livelihood and looked after visiting pilgrims through their own work and self-sufficiency. They grow vegetables and fruit, sow crops and preserve mushrooms and berries. There is also a cattle farm to produce dairy and other animal products. Pühtitsa is widely recognized as an interesting area, well known to the Estonian Orthodox and foreign tourists alike. The convent has a lot of visitors as the place is of interest to scientists, culture and art enthusiasts, students and foreign tourist groups. The convent area, where old customs and a long tradition of charity still prevail, is always open to the public.

The convent – dedicated to the Dormition of the Mother of God – was established in 1891 on the site of revelation of the Mother of God in the 16th century. The Orthodox built a small wooden chapel there and it was called Pühtitsa, “a holy place” in Estonian. Pilgrims from all over the world have been visiting the place for three centuries. A new, bigger church was built next to the wooden chapel in 1885, called Uspenie Church, which became the centre of the first Pühtitsa Orthodox Parish. There was also an Uspenie women’s community, which shortly developed into a convent.

Over the years, Copper Forum has followed and reported from different building projects that were competing for the Copper in Architecture Award. This autumn it is time again to select a winner. It has been a difficult task for the jury to pick out the five nominees from the about 50 competing building projects from different parts of Europe. These five nominees will go on to the final competition, and the winning project will be announced at a ceremony in London on September 29, 2009. In this issue of Copper Forum we will present all the nominated projects.

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Holland • Hungary
Italy • Luxemburg
Norway • Poland
Russia • Spain
Sweden • Switzerland
United Kingdom

Pavilion in Hoover Square, Warsaw
Artist José Antonio Antolí Segura
Parventa Library – a unique work of art
European Copper in Architecture Awards

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