

07

THE STONE NOTEBOOKS
STONE AND PUBLIC SPACE

SURFACES



2 URBAN OPUS

A hint of the countryside brings a touch of lightness to these urban surroundings. Stone shapes and structures a city landscape without weighing it down and a landscape becomes almost bucolic.



4 COCKTAIL OF TEXTURES

At the foot of a building that seems to spring lightly from the ground, natural stone, with its multiple facets, becomes the foundation of a people-friendly and functional space.

6 HAPPY MARRIAGES

Stone surfaces often benefit from the encounter between local or more distant varieties: the colours sing and the stone becomes warm and welcoming.



8 A PINCH OF STONE

A few touches of natural stone delightfully enhance more basic surface coverings.



10 VARIETY OF FINISHES

Some "stone" products have been studied to facilitate the design of public space projects while rendering the interpretation in an almost endless array of finishes.

12 CLOSE-UP

Public spaces must remain easily accessible: the platforms of a now famous station show just how adaptable stone can be.



14 PURE SIMPLICITY

In this landscaped cemetery, stone, a symbol of eternity, emphasises the ubiquity of plant life: a fine example renewing the often austere vision of these timeless spaces.



16 SMALL SIZES

Today's cobblestones can be laid very easily, which does not prevent engaging in flights of fantasy.

07

STONE AND PUBLIC SPACE | SURFACES

With the passing of time, natural stone's great affinity with public space shows no sign of diminishing. Yesterday it was intimately entwined with majestic avenues and monumental squares, but also with roads crisscrossing the countryside or village lanes. It played on the use of light and colour in building architecture, unknowingly contributed to overall harmony and was instrumental in making public spaces livable. Today, it must learn to compromise with many other materials, less expensive or faster to use, to continue to clear a way for itself in towns and cities. Stone perseveres and, more often than not, finally asserts its presence nevertheless.

Hard limestone and sandstones, and sometimes marble, are the specialists of public spaces among the stones from our regions. Limestone – our Belgian blue limestone – is outstandingly hardwearing and durable. Belgian limestone is used far beyond our borders and there is a range of colours and a variety of limestone finishes to suit all styles and locations. The qualities of sandstones are widely acknowledged – since they were the first to have paved the surfaces of our lanes –, and infuse the warm tones of their varied shades of colour and the charm of their rusticity. People have been treading on marble too for a very long time and it is ideally suited to public space bringing a touch of originality.

Because of their adaptability, in particular in meeting the requirements of the sustainable development of contemporary towns and cities, our natural stones have found their rightful place. The projects described throughout these pages prove that natural stone is a source of inspiration for many talented and brilliant designers.

A little hint of garden

URBAN OPUS

In a very contemporary district, the challenge was to succeed in linking up an office block, a car park, a cemetery and garden with a stone enhancing the natural accents, brimming with the rustle of life frisking through the tall grass. The gamble has paid off and the Parvis des Nuages sounds a new note of authenticity in the public space.



"This space is the real success story!" a citizen of Lille exclaims, smiling as he rides his bike on the way to the office. "I pass through here every morning and it's wonderful!" His figure disappears behind giant Miscanthus ... He has just passed the bus stop and the public convenience that goes down to the underground but open-air car park. He is heading for the tall buildings of the Greater Lille Urban Authority (CULM). The graves of the East cemetery are barely noticeable, buried in the greenery, on the right, behind the Rue du Ballon. On the left, the Giants' Garden and its northern mists begin a little farther on. A network of paths, all identical, were designed by the Mutabilis agency to accompany the pedestrian towards all these places. Mutabilis was the prizewinner of a competition and overall prime contractor for the project. The designers wanted simple, long-lasting and natural paths. To respect their choices, a locally quarried stone was selected – blue limestone –, and walking through the pathways brings to mind a vocabulary related to the garden but in an original way that highlights the public space: a carefully laid, slightly more urban, random bond (opus incertum), with fine joints, is edged with long, thicker and irregular flagstones wonderfully combining to form a kerb. You can take short cuts through the tall grass where long, slightly staggered, trapezoidal flagstones, placed far apart, reveal the world upside down.

► PARVIS DES NUAGES AND JARDIN DES GÉANTS, LILLE (F), DESIGNED BY MUTABILIS, LANDSCAPING WORK BY SOCIÉTÉ NOUVELLE BROSSET

STONE

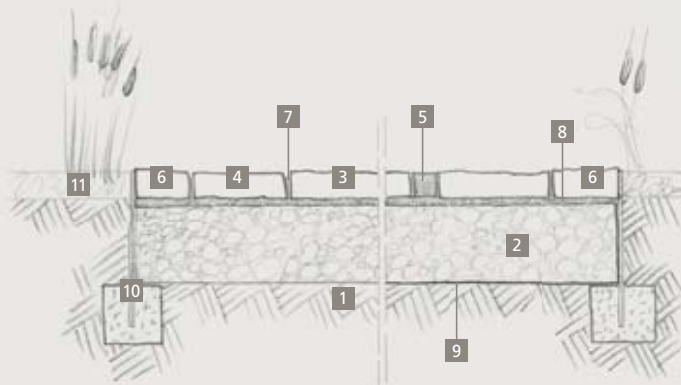
Blue limestone is known for its outdoor usability, especially in public spaces, even in very busy areas. The flagstones used in the random bond pattern were chosen in three finishes: frosted, honed and fine bush hammered. The kerbstones are made of rough crust.



TECHNIQUE

Laying this random bond required extensive know-how: the very fine (less than 1 cm) and regular joints demand precise cutting of the flagstones. The pieces with a sawn finish are used as wedges in the final layout. The irregular kerb made of rough crust is laid

first: it disappears close to the wooden and metal stools and gives way to the covering of the path that stops at the foundation of the seats. Special care was also taken in placing the manhole covers.



- 1 actual ground
- 2 ballast 0/31.5, 25 cm thick
- 3 bush-hammered flagstones, flatness tolerance 0 and 0.5 cm, 5 to 8 cm thick
- 4 frosted flagstones, flatness tolerance 0 and 0.5 cm, 5 to 8 cm thick
- 5 honed "wedge", 5 to 8 cm thick
- 6 flagstones made of blue limestone crust
- 7 joint maximum 1 cm
- 8 bedding mortar
- 9 geotextile fabric
- 10 metal flat plate sealed in solid concrete
- 11 mulch

Unashamedly natural spaces

The unaffected, almost playful, nature aspect is also to be found in two other very different spaces. An urban square in Soignies integrates slabs of blue limestone blocks into the ground, placed as such: the huge joints are actually made of white PEHD "honeycomb" flagstones, filled with very pale gravel. In this way, the whole square, which also plays the role of an outdoor theatre at the foot of the arts centre, remains suitable for motor vehicles and is practical to use.

At Chevetogne, a random bond made of Condroz sandstone is used as a link between all the buildings of the immense central esplanade – interpretation centre, restaurant, open-air centre, reception – and foretells the very "wild" commitment of the spaces and play areas spread throughout the deep forest.



1 PLACE VAN ZEELAND, SOIGNIES, DESIGNED BY POLY'ART



2 PROVINCIAL ESTATE, CHEVETOGNE, DESIGNED BY BENOÎT FONDU, FONDU LANDSCAPE ARCHITECTS





A very British way of
looking at public space

COCKTAIL OF TEXTURES

Bolivar square is an important new public square opposite the law courts in Antwerp. It is a work by Richard Rogers Partnership and has become a vast public space on the south side of the urban centre. It forms, with the fantastic building by Rogers, an incontestable gateway to the city.



The construction of this building is closely linked to the construction of the Bolivarplaats which connects it to the Americalei, offering its extended outlook, and to the planted areas providing link roads to the expressways. Straight off, Richard Rogers wished to give this esplanade clearly defined public space functions: the space is pedestrian but welcomes a new tramway station, not to mention the bicycle parking racks. Bolivar Square was going to be built around this concept of accessibility and activities and entertainment, cafés and restaurants became added attractions.

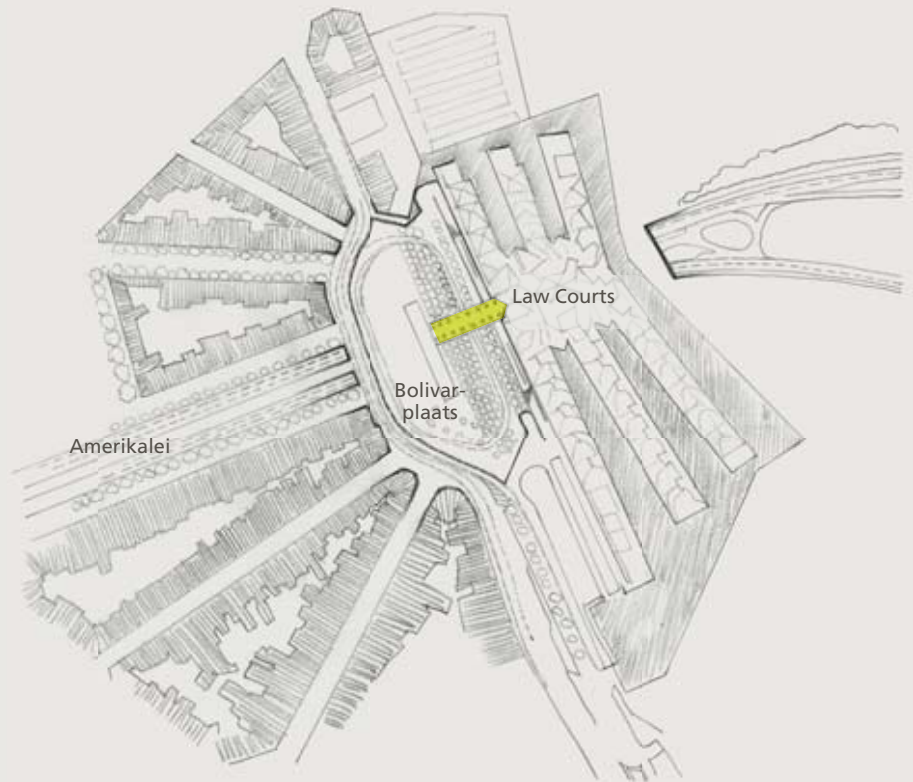
The integration of technical data to factor in the overall sustainability requirement was going to impose natural stone as the basic material for the Square. Natural stone is present in a range of different textures and assemblies, visually marking the transport lanes, restoring overall unity to this urban fabric formerly disfigured by the ring road. The “striped” effect emphasises the long façade of the law courts while creating a clean-cut design clearly visible from the large stairway, which Rogers has emphasised in bright yellow. The range of colours, from the light grey of the stone to the green of the plane trees, is soft and offers a sober perception of people friendliness around the law courts with the court house drawing closer to the citizen through this spatial openness.

► BOLIVARPLAATS, ANTWERP, DESIGNED BY RICHARD ROGERS PARTNERS, VK GROUP, SWK, OVE ARUP

PLAYING WITH TEXTURES

Flagstones, rubble stone, cobblestones, kerbstones, blocks... blue limestone is omnipresent on Bolivar square. The various selected finishes create the colour, delimit areas, indicate the tramway tracks and, in short, bring the space to life: sbattu (dark grey background speckled with white) and chiselled were the finishes chosen for the flagstones owing both to their aesthetic characteristics and their nonslip property. Honed and

flamed finishes are used to embellish the access ramps leading to the law courts, enhanced with stainless-steel handrails. The flame finish, whose slip resistance no longer needs recalling, was selected for the steps and risers. The architects preferred untreated sawn cobblestones so as to take the shape of the curve of the tram line. Even the prismatic bollards associate the blue limestone crust with the other machined finishes.



COBBLESTONES BETWEEN THE RAILS

In urban surroundings, the laying of cobblestones between the tram rails is used to facilitate pedestrian traffic and provides a more hard-wearing surface in busy areas than lawn. The rails are supported by sleepers and the actual sleepers are laid on a concrete slab. Their sides are insulated along their entire length by materials filtering vibrations. A layer of concrete is poured to come and block the whole structure for good. Next, a thin layer of mortar is set to enable the embedding

and the manual packing of the cobblestones. A slight camber is given to the surface to facilitate the flow of water runoff. Once the packing mortar is dry, a filling mortar is used as an infill between the cobblestones and finishes off the ground surface. The rail can also be sunk into the resin to seal it to the concrete platform. This process was tested in Leuven. The rail receives a polyurethane spray coating and the edge cobblestones are then used as shuttering. The laying of

a joint is necessary. The concept of a track kit laid on a raft has recently emerged. Prefabricated slabs, which may be up to 18 m long, are cast at the factory by following the diagram plotted on the ground. The rails are installed in locations previously made when the slab was being cast. The rails are made integral with the slab with resins, and protrude by approximately 50 cm at each end. The slab is possibly provided with a cobblestone covering.





4

HAPPY MARRIAGES

Mixed gaiety

A daring use of colour and a medley of colour schemes! Towns and cities are teeming with places where stone is used uninhibitedly. Salvaging holds pride of place, especially in the ecodistricts, where sustainable development is a compelling factor. Variegated stones vie with one another and give original results imbued with gaiety!



1



2

1 A LANE IN THE HEART OF THE URBAN CLUSTER, TÜBINGEN (D)

2 TOWN CENTRE SQUARE, MAASEIK



3

3 SMALL SQUARE IN THE HEART OF THE URBAN BLOCK, MÜNCHEN (D)



5



6



7

4 CONDROZ SANDSTONE AND WHITE GRANITE, GUILLEMINS STATION, LIÈGE

5 SANDSTONE, PLACE HENRI CONSCIENCE, BRUSSELS

6 SANDSTONE AND FONTENOILLE SANDY LIMESTONE, PEDESTRIAN PRECINCT, ARLON

7 RED MARBLE AND BLUE LIMESTONE, PLACE D'ARMES, PHILIPPEVILLE

8 RED MARBLE AND BLUE LIMESTONE, PLACE KEYM, BRUSSELS

Colour

The predominance of blue limestone in public spaces must not conceal the existence of other stones just as suited to this type of use. They are used fairly locally but they are nonetheless very interesting rocks and their greatest quality is also to bring colour and warm tones to surfaces: sandstone with russet, green or brown tints, red marble, yellower sandy limestone ... It would be a pity to forget those stones because the ensuing results are out of the ordinary!



8

A mosaic city

In Strasbourg, natural stone is widely used in public space: there are many combinations to be discovered as you stroll through the squares and streets.



9



10

9 AND 10 PLACE DE LA CATHÉDRALE AND PLACE KLÉBER, STRASBOURG (F), DESIGNED BY VILLE ET COMMUNAUTÉ URBAINE DE STRASBOURG

Contrast

The Place Massena in Nice was completely renovated when the tramway was rebuilt. On the ground, a beautiful checkerboard effect of colours and texture.



11



11

11 PLACE MASSENA, NICE (F), DESIGNED BY BRUNO FORTIER



A PINCH OF STONE

A good many rural municipalities, established in regions where natural stone has been quarried since time immemorial for buildings, have kept a landscape marked by the underlying rock. The surface coverings, where stone is traditionally used, are the alter ego of those rough or painted rubblestone walls, and contribute a great deal to the unity and harmony of country boroughs. Today, however, the use of stone, when squares or streets are being redeveloped, very often remains an unrealisable dream. Designers do not hesitate to use small quantities of natural stone to rediscover the same surface feel and the end result is excellent.

Trickles of water

In the heart of Brittany, Rochefort-en-Terre took advantage of a renovation of its underground systems to restore some charm to the lanes of its town centre, which have become a shared space. The hydrocarbon bitumen that had covered them over with the passing of time did not match the label "Petite cité de caractère" awarded to small towns with consistent architectural heritage. Looking for a solution to blend in with the old stone walls, the choice focused on sanded bitumen, leaving room for a traditional stone channel in the centre of the street. The doorsteps of the houses facing the street, without a pavement, have also been embellished with a small stone square which restores an intimate touch to the doorways.

In Corzent, along Lake Geneva, an old fishermen's lane is treated in a similar way in greyer tones.



1 TOWN CENTRE, ROCHEFORT-EN-TERRE (F)



2 TOWN CENTRE, CORZENT (F)

Notes of stone

As a place of historic interest, pits 9 and 9a of Oignies are currently being completely redeveloped in a scheme led the Hénin-Carvin greater district council. The central esplanade, designed by as a breath of air in the site, is a meeting place where walks on the tips and the paths leading to the directional and commercial centre and to the former pit head converge. Slightly raised to make rainwater control easier, this space is covered with fine gravel, half of which is composed of Tournai aggregate and sand, and half of black bat (bituminous shale). It has been planted with metasequoias (dawn redwoods) and strewn with rough sawn blue limestone flagstones. The minimally designed benches are made of grinded blue limestone.

➤ REQUALIFICATION SITE OF PITS 9 ET 9A, OIGNIES (F), DESIGNED BY ISABEL HÉRAULT, YVES ARNOD, CAP PAYSAGES



Vintage

The eighties brought a lot of originality to the design of surface coverings, a touch of nonconformity forgotten nowadays as the trend is characterised by absolute purity of lines sometimes close to boredom. Those surfaces did however offer the advantage of using stone to enhance less warm materials, such as concrete flagstones or ceramic bricks, and so display greater tonus rendering appropriate expression. Today, such combinations are still possible if treated in a contemporary way.

➤ SART-TILMAN, LIÈGE, DESIGNED BY CLAUDE STREBELLE

Lines of stone

Ground markings intended for the blind and visually impaired are not always eye pleasing. The landscape architect has included lines of schistose sandstone in a beige concrete surface, drawing primitive patterns on the ground and joining detectable warning surfaces for an original style of surface design.

➤ JARDIN DU MUSÉE DU QUAI BRANLY, PARIS (F), DESIGNED BY GILLES CLÉMENT



Rays

Between the actual garden, which houses the collection of sculptures by Maillol, and the esplanade made of stabilised sand with cement, structured yew hedges are transformed into beams of stone radiating from the foot of the monument. This very busy site, leading to the shopping malls and to the Louvre museum, simply gains in elegance.

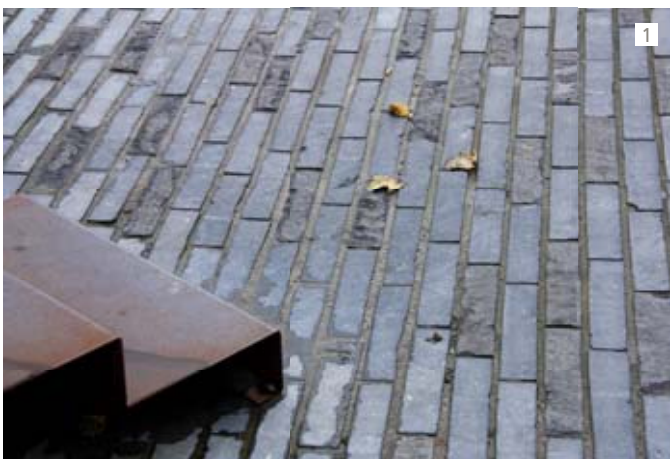
➤ JARDIN DU CARROUSEL, LES TUILERIES, PARIS (F), DESIGNED BY WIRTZ INTERNATIONAL S.A.



3

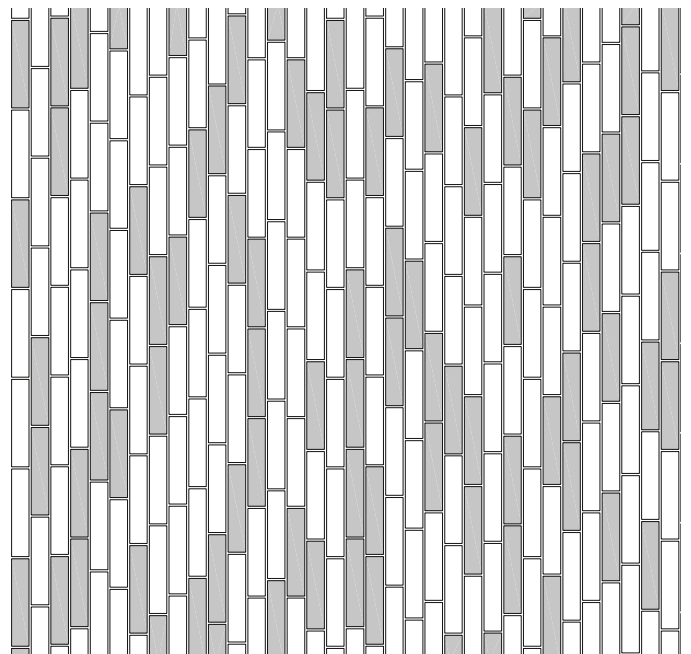
VARIETY OF FINISHES

Despite its unequalled durability, a patina that mocks the changing weather and gains in intensity with the passing years, blue limestone is sometimes accused of being slippery. In our climes, where rain, fog, snow or ice are frequent, public space must rhyme with safety. The finishing work is then of the utmost importance.



1 The architects' choice focused on blue limestone with 15x15x8 cobblestones and 40x8x8 aged elements whose faces are cleaved or sawn and which can be alternatively laid on one side or on the other. A covering is obtained in this way which is easy to lay and which allows a great variety of rendering effects while not being very slippery.

DORPSPLEIN, KAPELLEN, DESIGNED BY BURO LUBBERS



2 The non aged blue limestone rubble stone chosen here also alternates sawn and cleaved faces at a more regular rhythm: three sawn lines for one cleaved line. Grass is allowed to grow in a triangle of the square, peering through the joints. People with mobility difficulties are, however, less than appreciative of the unevenness of the joints, rather unusual in a public space.

PLACE D'EMBOURG, CHAUDFONTAINE, DESIGNED BY CANEVAS, FLORENCE FRESON



3 The lapidary engraving on honed blue limestone instils sophistication into a small square leading to the gardens of Egmont Palace. The delicacy and the uniformity of the colour of the blue limestone mean that it is quite particularly intended for engraving, a craft where mediocrity does not thrive. Public space can thus be a space for reading or meditating ...

PLACE MARGUERITE YOURCENAR, BRUSSELS, DESIGNED BY AVA

4 The major renovation work currently taking place in La Louvière town centre includes a series of streets and squares which are linked together in an urban fabric where priority is given to revitalisation. Stone was chosen for the coverings of the two squares and the meeting areas along the neighbouring streets and the layout pattern is simple and composed of repetitive sequences: the overall spatial perception challenges the commonplace while retaining visual unity. The blue limestone flagstones were selected in three finishes – flamed, bush hammered and rough sawn – and assembled in strips of free lengths for three widths 15, 30 and 60 cm. The laying direction is always parallel to the line of slope. LED lighting is inserted through these sequences.

PLACE MAUGRÉTOU, LA LOUVIÈRE, DESIGNED BY D+A INTERNATIONAL, COOPARCH-RU, AT OSBORNE



All-important details

CLOSE-UP

Today's stations are the monuments of our time. An increasing number of technical questions have to be solved, especially those related to passenger safety. Stone does however have its say: let's have a glance at our now famous Guillemins station.



Liège Guillemins station is an early 21st century architectural adventure and has become an important public space in our everyday lives. Stone enjoys pride of place under its immaculate framework: floors, platforms, footbridges, balconies and pavements represent some 25,000 m² covered with blue limestone. Inside the station, honed blue limestone, originating from Sprimont, covers the shopping mall located underneath the tracks in a beautiful dark almost black shade. Above it, bush-hammered flagstones from Soignies, with their light grey tints, are used to cover the entire pedestrian areas of the station and its platforms.

The workmanship is noticeable in the slightest technical details: laying on a metal support, but also specific designed and crafted stone elements such as furniture and counters, booking offices, benches, etc. made of Belgian blue limestone from Chanxhe. This stone is also present in the textured tactile paving and surface indicator paving with inlaid white marble lettering for the platform markings.

Stone, whose essential hardwearing and long-lasting qualities are highly appreciated today, also recalls the first stations in the 19th century. They were monuments of their time, built and sculptured in stone, and their architecture marked the emergence of that new technology, the railway.

➤ GUILLEMIN'S STATION, LIÈGE, DESIGNED BY SANTIAGO CALATRAVA / EUROGARE

TECHNIQUE

For outdoor areas, the size of all the bush-hammered, blue limestone flagstones is 59.6x29.6 cm. They are 4 cm thick, except on the footbridges where their thickness is 5.5 cm.

Platforms and pavements: the flagstones are laid with mortar (without yellow sand). The "marble" type joints are all 4 mm. A flexible polyurethane joint of the same colour as the cement joint was made every 7.5 m in both laying directions (every 7.5x7.5 m) as well as on the edge of areas receiving another floor covering. The flagstone layout drawing was defined with a lengthwise staggering of the joints of 1/5.



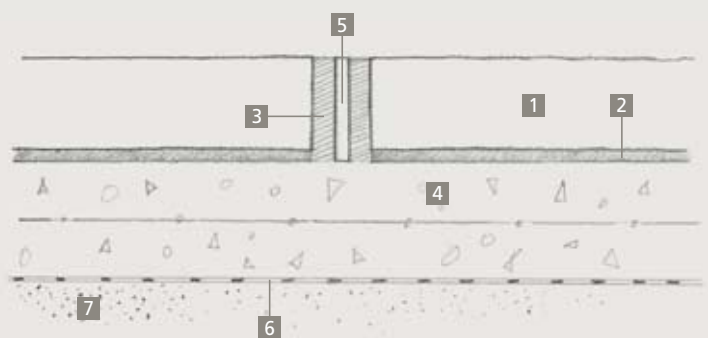
The expansion joints were made by respecting the staggering (jagged pattern). On the platforms, the expansion joints are crosswise and placed every 7.5 m, in such a way that they are modulated on the main passageways.

Footbridges: the underlay was adapted to the laying of stone on a metal support. The laying screed had to be flexible; the underlay provides a separation between the floor covering and the metal support. The complex makes it possible to take up the movements of the footbridges, the dilatations and the movements due to thermal variations. The covering of the footbridges is provided with a lengthwise central joint and crosswise joints every 7.5 m.

Special textured flagstones are used as tactile paving to assist blind and vision impaired pedestrians: sizes 29.6 x 29.6 cm. The surfaces are ridged or truncated. All these elements are solid.



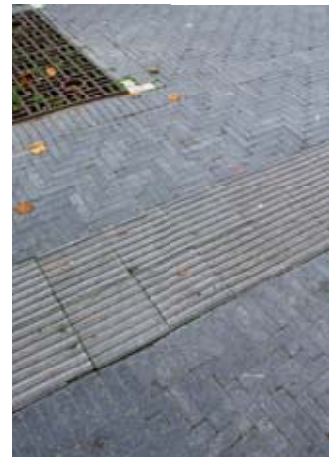
- 1 40 mm thick flagstones
- 2 5 mm adhesive mortar
- 3 10 mm flexible joint
- 4 50 mm thick reinforced topping / 50x50x2x2 mm mesh
- 5 metal angle iron
- 6 separating polyethylene film
- 7 metal support of the footbridge



Beauty warning

To reconcile beauty and minor technical details – not always pleasant to the eye – it is often interesting to integrate them into the layout drawing from the design stage. They thus contribute to the overall depiction of this square and vanish from sight while remaining just as effective.


➤ STATION SQUARE AND MARKET SQUARE, SINT-NIKLAAS, DESIGNED BY CEPEZED ARCHITECTS, JOURET DESIGN OFFICE, ARCADIS GEDAS DESIGN OFFICE



Rainwater

Public space without trickling water is impossible. For a natural stone surface, what is more logical and aesthetical than to use water collection systems also made of stone? The result is incomparable, not at all more complicated and provides the finishing touch.

➤ TOWN CENTRE, TOURNAI, DESIGNED BY BE PHILIPPE THOMAS



Stone, the very material of memory

PURE SIMPLICITY

The creation of a cemetery closely associated natural stone with vast lawns and planted areas, in an extensive landscaped park concept where walks connect the park to the town centre and to the banks of the Lys. The overall result breathes peace and serenity.



Shaded by hundreds of trees, Wervik cemetery is a broad expanse where plant life predominates. Built according to a radiating design, its grassy paths converge towards the funeral chapel with its sober contemporary architecture, itself surrounded with tranquil water, symbolic of the passage to the hereafter. The landscape designer, Andy Malengier, has placed a thin water channel in the perspective of this chapel, drawing the gaze towards a clear sky.

The park is crossed by two broad, paved and planted, parallel paths, which, away from the graves scattered in the grass, lead to the chapel and to the two outside car parks. The strength of stone and the calmness of the grass combine to give an overwhelming sense of majesty to these paths marked with welcoming solemnity.

► CIMITERY, WERVIK, DESIGNED BY ANDY MALENGIER

TECHNIQUE

The cobblestones were chosen in sawn blue limestone. They all have conventional sizes, 10x10x8, placed in line with alternating joints. They were placed in circles for the square in front of the funeral chapel. The cobblestone layer must have excellent know-how of the laying technique. The kerbs of the paved pedestrian paths are composed of two lines of small 15x15x3 slabs, placed

vertically in a staggered pattern in a concrete foundation. These kerbs refine the design and are more aesthetically pleasing than a conventional concrete kerb, while being made with elements that adapt to fairly tight curves. The parking surfaces are made of cobblestones with wide joints to leave them green: in this way, they fade into the landscape surrounding the cemetery.



Softness

Andy Malengier has recently redesigned parts of other cemeteries where he continues that delicate alliance of stone and lawn: those two-tone carpets, shimmering in the sun, light up the pathways. It is worth noticing the stone urns, placed on tall plinths; they add a very structuring and contemporary element to these areas of meditation.

► CIMETERIES, ZONNEBEKE, GELUVELD, PASSENDALE, DESIGNED BY ANDY MALENGIER



Sensitive engraving

Engraved blue limestone is omnipresent in this recently refurbished cemetery: the calligraphies highlight the messages of peace to be found on steles and on a ground slab, located in the middle of this cemetery designed as a park area right in the heart of the city.

► CEMETERY, LEUVEN, DESIGNED BY MICHEL PAUWELS, ENGRAVING PIETER BOUDENS





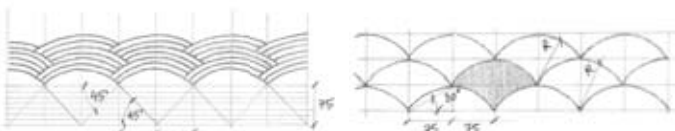
Ultra simple laying

Stone can adapt to today's technical demands. More standardised products have been put on the market to show that stone paving can compete with the laying of interlocking concrete paving stones. The esplanade of the City of Design, built on the site of the former weapons factory of Saint-Etienne was paved with aged elements 15x15x5: these blue limestone paving stones with rounded edges and corners have an aged appearance which is perfectly suitable for old or contemporary settings. They are simply laid on a porous foundation made of finely crushed material and are pointed with fine white sand. Along the Platine, the paving stones are laid on a 45° slope and on lean concrete, ample evidence of their usability.

► CITY OF DESIGN, SAINT-ÉTIENNE (F), DESIGNED BY LIN+A /FINN GEIPEL / GIULIA ANDI

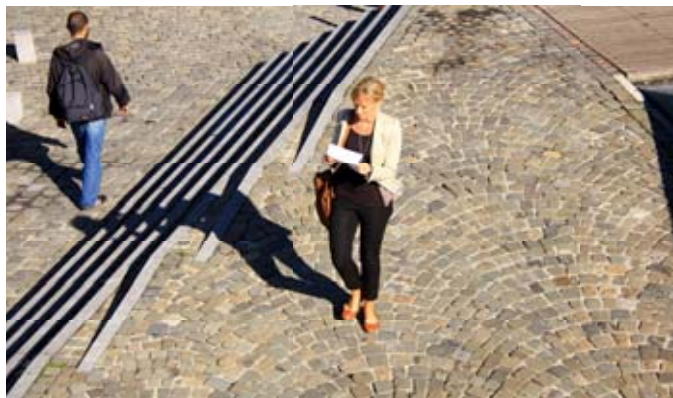
SMALL SIZES

Fan, shell, scale or whorl?



Whorl

Scale



1 WHORL BONDED COBBLESTONES, MEUSE RIVERSIDE, LIÈGE

The bonding of mosaic cobblestones is traditionally made in straight lines, but more sophisticated laying techniques are still used.

The fan uses 9/11 cobblestones laid in alternating semi-circles, separated by a "tail".

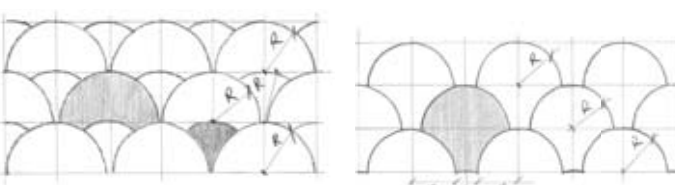
Shell or peacock tail bonding patterns are similar but made with cobblestones of varied sizes (5/7 - 8/10 - 9/11). The diameter of the semi-circles is between ± 140 and 200 cm.

Scales superimpose arcs of circle like fish scales. The line is between 140 and 200 cm.

The bonding pattern of concentric whorls is achieved by starting with a semi-arc on the side of the roadway. Various sized cobblestones are also used in this case.



2 PEACOCK TAIL COBBLESTONES, SANDSTONE AND BLUE LIMESTONE, PLACE DE L'ÉGLISE, HOUFFALIZE



Fan

Shell, peacock tail

Glossary

Bush hammered

Finish which displays light points on a dark background. These points are deeper and spaced farther apart in the conventional coarse-hammered finish than in the fine-hammered finish where there are greater clusters of points closer together.

Chiselled

Finish displaying evenly spaced chisel marks.

Cleaving / Cleaved

Action of splitting or causing to split a stone or ore, making a crack; split stone or ore.

Combed

Finish characterised by light grey grooves contrasting with the rough stone.

Crushed stone

Gravel chippings obtained by crushing the rock.

Crust

Weathered surface of a layer of rock. The thickness of these surface alterations may vary according to the natural stone under consideration and the deposit.

Flagstones / Paving slabs

Slabs for paving whose nominal width exceeds 15 cm and is generally equal to at least twice the thickness. See standard EN1341.

Flamed

Finish obtained through surface scaling by passing a blowtorch over the stone.

Frosted

Streaked finish reminiscent of crystals of frost. The stone is cut with a pneumatic chisel and the chisel blows do not follow preferred directions.

Grinded

Finish resulting from the use of mechanical grinders. The surface is even and covered with very fine circular streaks.

Honed

Satin-smooth finish with an even surface.

Layout drawing

The layout drawing is a very accurately dimensioned detailed sketch or drawing indicating the layout of tiles to be laid. It makes it possible to

determine the quantities, the surface areas, the weights and the volumes. The actual notebook contains the drawing and work data.

Off-cut

Roughly finished flagstone, produced by the splitting of the rock with the particularity that thickness is not constant. Off-cuts are often used in random bond without a regular pattern.

Old cut

Chiselled finish created without a specific number of cuts; the grooves are parallel to the edges or at a slight angle.

Porphyry

Red volcanic rock displaying big feldspar crystals. Highly resistant, it was shaped, in particular to make cobblestones for the cobbling of streets. It is no longer produced in Belgium nowadays.

Random bond (Opus incertum)

Paving resulting from the assembling of off-cuts or irregular slabs in bedding mortar.

Rough sawn

Smooth in appearance displaying traces and ripples, less than 1 mm offset.

Rough slab

Stone cleaved or split at the quarry.

Sbattu

Finish characterised by speckles of whitish cuts.

Sclypé

Finish characterised by light grey grooves on the rough stone.

Size

Size when referring to fragments of crushed or rolled gravel. The size is often indicated by a range of two figures representing the minimum and maximum sizes of the mixture.

Slab

Piece of stone resulting from the cutting (sawing) of a block of stone into "slices". The dimensions of a slab are variable, often between 1 and 2 m wide, 1 and 4 m long. The usual thicknesses start from 2 cm and range up to approximately 40 cm.

Our thanks to the municipalities and project designers which spared us a little of their time and agreed to be published. We apologise if we fail to mention some of them in these pages. We will publish their names in a future issue if they kindly make themselves known.

Dominique Guerrier Dubarle is an agricultural engineer, specialising in the history of gardens and landscape. Sensitive to the constantly renewed work of yesterday's and today's designers, she shares her personal way of seeing recent achievements that highlight stone, her favourite material.

Cristina Marchi is a building archaeologist, specialising in heritage, its know-how and in heightening awareness about history and architecture. She is attentive to the "stone people" revealed through words and pictures to create wanted or unexpected links.



PIERRES & MARBRES WALLONIE

PIERRES et MARBRES de WALLONIE asbl
Rue des Pieds d'Alouette, 11 - B-5100 Naninne
T +32 (0)81 227664 - F +32 (0)81 745762
info@pierresetmarbres.be

www.pierresetmarbres.be

Research and original text in French

Dominique Guerrier Dubarle, Cristina Marchi

Support committee

Francis Tourneur, Nicole Carpentier

Translation Griffin Translations

Coordination Cristina Marchi

Photograph Cristina Marchi,
Dominique Guerrier Dubarle, Francis Tourneur,
Studio 36-Jacques Geneste (16/1),
Andy Malengier (15/2/4)

Drawings Dominique Guerrier Dubarle,
Buro Lubbers (10)

Sources p.4 www.ferro-lyon.net/
www.actualites-news-environnement.com

Design and graphic production
Noir Quadri

Printing Bietlot

Published by
Pierre Dethier, Rue des Pieds d'Alouette, 11
B-5100 Naninne - March 2011

With the support of



For 20 years, **PIERRES et MARBRES de WALLONIE** has been disseminating accurate and detailed information about all the facets of natural stone in Wallonia: history, products, traditional and contemporary uses, technical expertise, documentation, restoration.

The **STONE AND PUBLIC SPACE** notebooks are intended to be practical discovery tools for architects, town planners and landscape designers but also for the general public. Many and varied ways of incorporating natural stone into our surroundings, drawing on recent projects implemented in Belgium or abroad, are thus presented in a detailed manner to designers.

This notebook is devoted to the use of natural stone in public spaces highlighting **SURFACES**. It presents achievements chosen for their originality or their classicism, their simplicity or a specific construction detail.

THE STONE NOTEBOOKS

This collection includes notebooks devoted to the garden, to public space and to architecture drawing on specific transversal themes.

STONE IN THE GARDEN
SURFACES | WALLS | STAIRWAYS |
WATER | SURFACES 2 | ...

STONE AND PUBLIC SPACE
SURFACES | ...

STONE AND ARCHITECTURE
WALLS | ...

