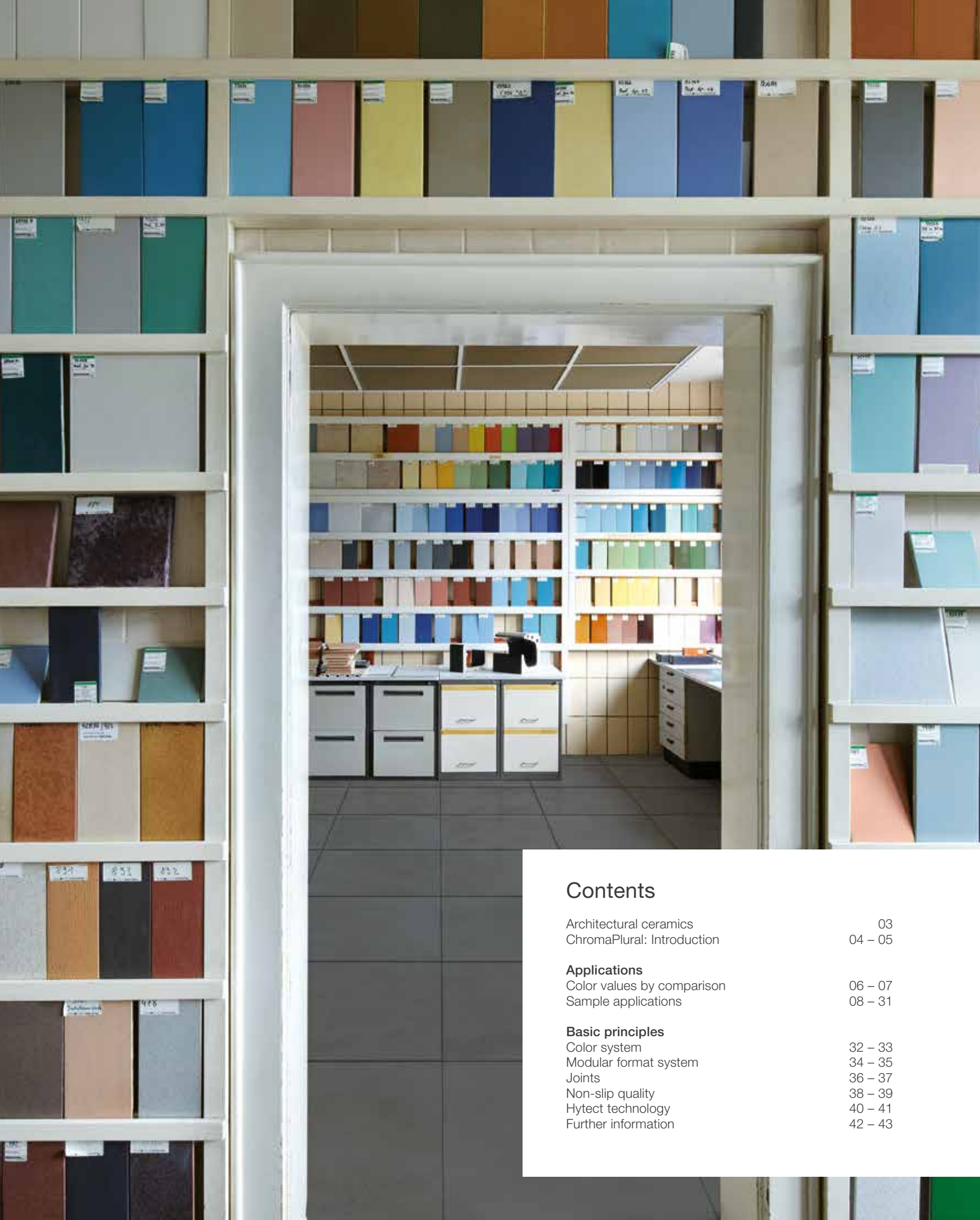


Chroma + Plural

Colors | Formats | Possibilities





Contents

Architectural ceramics	03
ChromaPlural: Introduction	04 – 05

Applications

Color values by comparison	06 – 07
Sample applications	08 – 31

Basic principles

Color system	32 – 33
Modular format system	34 – 35
Joints	36 – 37
Non-slip quality	38 – 39
Hytect technology	40 – 41
Further information	42 – 43

Raw material & compliment: ceramics in architecture

Ceramic has been an “architectural raw material” for more than 2,000 years. Colored tiles and ceramic decorations were already used by the Etruscans in their buildings. As a specialist for architectural ceramics, Agrob Buchtal offers an extensive product and service portfolio for contemporary and future-oriented building and design with ceramics.

The history of the company dates back to the 18th century. Today, Agrob Buchtal is a global player that is firmly rooted in its traditional location in Germany. Development and production are largely carried out here. The varied tile collections and customised special solutions are used worldwide – on the facade of an award-winning residential complex in London as well as on the roof of the Basel Museum of Cultures, in the swimming pool in Shenzhen, on the promenade in Abu Dhabi, or in the Munich underground.

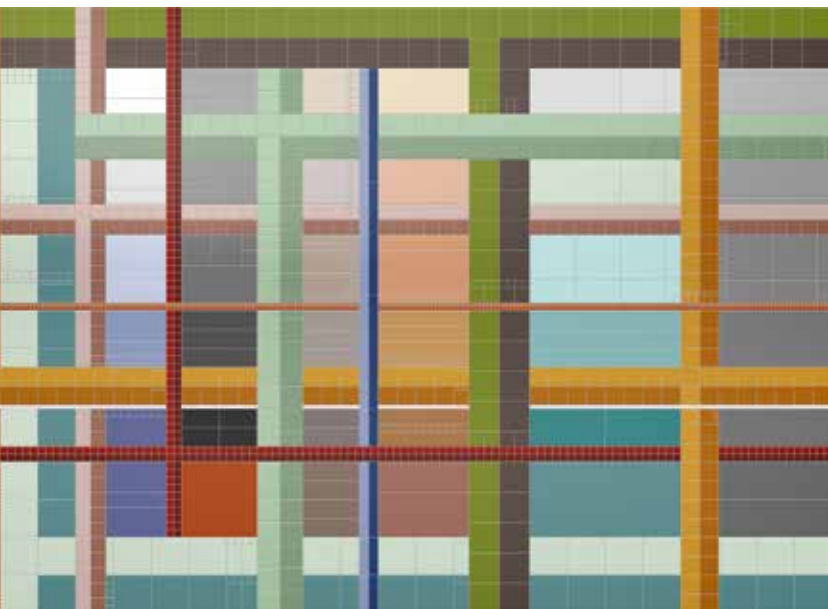
Agrob Buchtal enables all classic applications and also opens up new areas of use for ceramic tiles – competent advice and comprehensive In-house Planning Department included. In addition to technological innovations for surface finishing and slip resistance, Agrob Buchtal is primarily concerned with design standards. The product range, which has been awarded more than 20 renowned design prizes, sets high standards of quality and product variety for every new development.

Agrob Buchtal attaches particular importance to its extensive modular format system and careful color compositions. A self-contained color system was specially developed for the architectural ceramic series ChromaPlural. “Color is a compliment to architecture”, once remarked the Mexican architect and Pritzker Prize winner Luis Barragán. “It is essential to give an area that touch of magic.” With this in mind, ChromaPlural pays a special compliment to architecture – with plenty of scope for individual design.

ChromaPlural: Colors. Formats. Possibilities.

ChromaPlural opens up creative freedom for architects and planners. The system combines the Chroma and Plural ceramic series, which have been successful for many years, under one roof and expands the range of applications with almost unlimited combination possibilities.

Serial variety and flexibility: the **UNICOLOR** color palette specially developed for ChromaPlural comprises 60 coordinated colors. Whether glazed or unglazed, earthenware, stoneware or porcelain stoneware – the slim 3 mm joint is just as standard with ChromaPlural as the Hytect finish, which reduces harmful substances, and the design in various slip-resistance levels. ChromaPlural is so versatile that it can be used both indoors and outdoors: from facades to floors, from underground stations to spa landscapes. The demands placed on ceramic as an architectural raw material are particularly high under water. Physical stresses lead to high loads in the pool area, which makes a special joint dimension practical. The design of a 6 mm joint ensures maximum safety.



ChromaPlural at a glance:

- A cohesive color concept with subtly-coordinated color sequences
- Silk-matt surfaces
- Slim joints
- Hytect surface (hydrophilic tile) that breaks down pollutants
- Versions with different levels of slip resistance

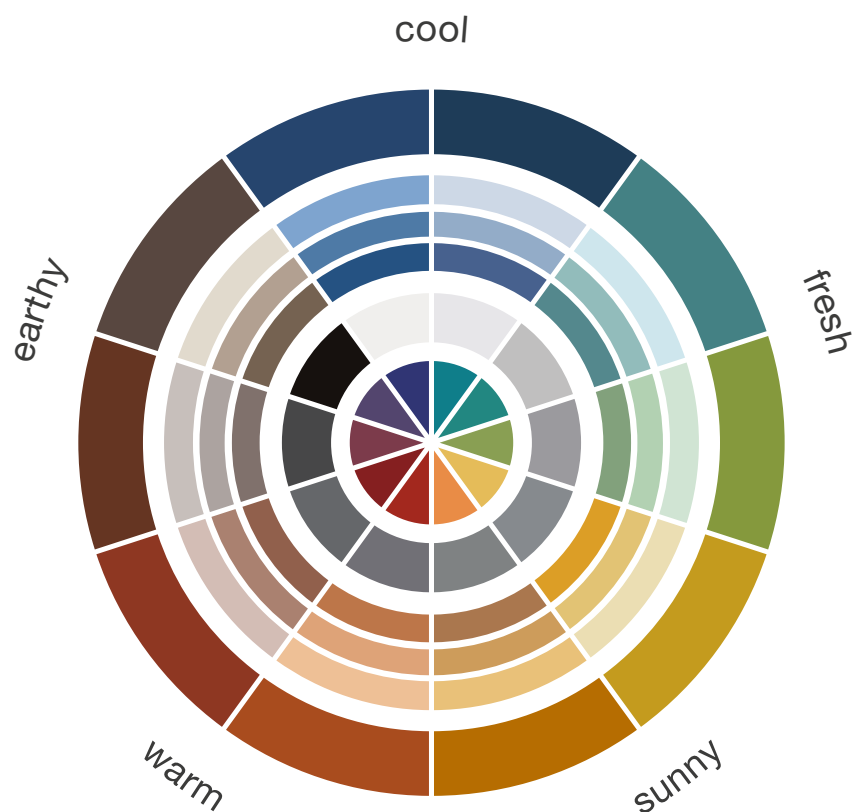
Colors across the board: variety creates freedom

ChromaPlural was specially developed for complex design requirements. Its self-contained **UNICOLOR** color system goes far beyond mere imitations of common color standards such as RAL or NCS. Ten color series form a color wheel of 50 coordinated shades. Six color spaces illustrate different color effects and areas of application. A further 10 new intensive colors complete the color wheel.

UNICOLOR thus offers architects and planners an elaborate range of color design tools. The carefully composed color palette of ChromaPlural enables flowing and harmonious transitions, cross-room designs, and is entirely at the service of the architecture. Form and materiality are emphasised by the graduated **UNICOLOR** colors, but not drowned out.

From color space to space of possibility

The six color spaces, which Agrob Buchtal has defined together with the color expert Peter Zoernack in the **UNICOLOR** color wheel, illustrate how **UNICOLOR** harmonises and works in combination. Adapted in a contemporary way, the color spectrum of nature is reflected in five ChromaPlural color spaces. They are each made up of eight colors in graduated tonalities. In addition, ten neutral shades, which vary in grey values between black and white, are combined into a further color space. The new intensive colors are integrated into this color matrix and thus expand our comprehensive range for architects and planners.



Color values by comparison



Intense colors



cobalt blue
NCS S 4055-R70B
Y = 8
RAL design
290 30 40



blue green
NCS S 3040-B50G
Y = 23
RAL design
190 50 25



sea green
NCS S 4030-G
Y = 21
RAL design
6000



yellow green
NCS S 2050-G40Y
Y = 34
RAL design
120 60 50



sunshine yellow
NCS S 1070-Y
Y = 50
RAL design
080 70 70

NCS, RAL & lightness value

The overview shows how the 60 colors of the UNICOLOR color system are coded in the standard RAL and NCS systems. The lightness value (Y) is also shown.

active ochre NCS S 3050-Y40R Y = 20	active salmon NCS S 4040-Y70R Y = 15	active oxide red NCS S 4050-Y90R Y = 10	active stone grey NCS S 5030-Y90R Y = 9	active sand grey NCS S 7010-Y90R Y = 8
light ochre NCS S 3030-Y20R Y = 48	light salmon NCS S 1515-Y50R Y = 51	light oxide red NCS S 2010-Y80R Y = 46	light stone grey NCS S 2502-R Y = 46	light sand grey NCS S 1502-Y Y = 56
medium ochre NCS S 4030-Y30R Y = 36	medium salmon NCS S 2020-Y50R Y = 39	medium oxide red NCS S 3020-Y80R Y = 25	medium stone grey NCS S 3502-R Y = 34 RAL 7036	medium sand grey NCS S 3005-Y50R Y = 35
dark ochre NCS S 4030-Y50R Y = 21	dark salmon NCS S 3040-Y60R Y = 23	dark oxide red NCS S 5020-Y80R Y = 15	dark stone grey NCS S 6005-Y80R Y = 15	dark sand grey NCS S 6010-Y50R Y = 14
ochre	salmon	oxide red	stone grey	sand grey
neutral 5 (basalt grey) NCS S 5502-B Y = 21 RAL 7046	neutral 4 (graphite black) NCS S 6000-N Y = 18 RAL 7037	neutral 3 (asphalt black) NCS S 6500-N Y = 15	neutral 2 (anthracite) NCS S 7500-N Y = 9 RAL 7015	neutral 1 (deep black) NCS S 9000-N Y = 3 RAL 9017



signal orange
NCS S1070-Y30R
Y = 39
RAL design
060 70 70



fire red
NCS S1080-R
Y = 14
RAL design
3002



brown red
NCS S2570-Y90R
Y = 10
RAL design
3003



berry red
NCS S4050-R20B
Y = 11
RAL design
360 30 35



violet
NCS S3555-R60B
Y = 11
RAL design
300 30 25

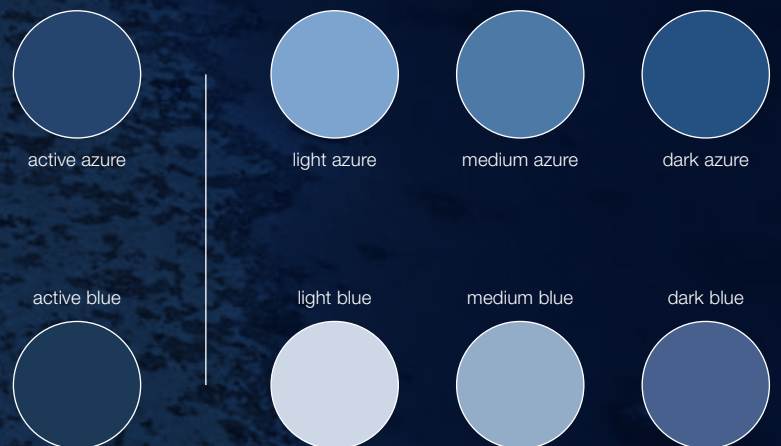
An aerial photograph of a coastline. The ocean is a deep, dark blue, with white foam from breaking waves visible along the shore. The beach is a light-colored, sandy strip that curves along the edge of the water. The word "cool" is printed in white, lowercase letters in the center of the image.


cool

Cool & classic: azure and blue

The colors of the sky and water form a color space that is particularly predestined for the design of swimming pools and sanitary areas. In combination with the neutral grey color range, this color space is given an additional cool accentuation in its color effect.

Sports facilities are one of the focal points of the arkMILL architecture firm. The architects from Kerava in Finland have already designed numerous indoor swimming pools, spas, and leisure pools. Ceramic tiles from Agrob Buchtal have been used time and again. For the COOL color space of the ChromaPlural system, the Scandinavian swimming pool specialists created a design variant that illustrates the interplay of color and function in a variety of ways. → 10





» Ceramic tiles are timeless,
the design possibilities
are infinite. «

We work with Agrob Buchtal products time and again, particularly in the swimming pool sector. In addition to the standard programme, the company offers us a very special range of ceramic swimming pool products, the quality of which has always convinced us.

Tapio Antikainen + Esa Viitanen, arkMILL



Design by arkMILL, Kerava, Finland



fresh

Dynamic & vital: turquoise and green

The FRESH color range stands for color designs in the bathroom and sanitary sector that go beyond classic concepts. Turquoise and green, each as an active color and tinted in three shades of grey, create a dynamic and vitalising color effect when combined.

The design by 4a Architekten from Stuttgart, Germany, demonstrates this in exemplary fashion. This award-winning architectural firm is one of the most renowned designers of swimming pools and thermal baths, and not just in Germany. For the FRESH color space, the architects designed a shower area with earthenware and stoneware tiles from the ChromaPlural system. They not only combined different formats, but also contrasted the turquoise and green tones on the floor and walls with black and black-grey tiles from the neutral color range. → 14



active turquoise



light turquoise



medium turquoise



dark turquoise



active green



light green



medium green



dark green

» ChromaPlural enables creative designs even in (supposedly) secondary locations. «

The time spent in showers is comparatively short – but they are very important spaces in functional terms. In our design, we wanted to enhance the design of the shower “anteroom” – thanks to ChromaPlural, we were able to set special highlights here by varying the color and format. A mosaic made up of tiles in the “FRESH” color space and the “Neutral 10” color in a 10 x 10 cm format picks up on the metaphor of a waterfall. This effect is supported by the restrained design of the remaining walls and the floor in a dark anthracite from the neutral grey color space. The vibrant green mosaic in the 2.5 x 2.5 cm format of the ledges creates additional highlights.

Martin Reimer, 4a Architekten



Design by 4a Architekten, Stuttgart, Germany

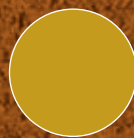


sunny

Bright & radiant: ochre and yellow

Whether in the dining area or in the kitchen, in a restaurant or in the healthcare sector – the SUNNY color range enables designs for rooms that need to radiate a friendly and bright atmosphere. Four yellow and four ochre tones in combination create a mood of warmth and cosiness.

The visualisation by Maurer & Partner from Hollabrunn shows an exemplary application. This Austrian office specialises in hospital construction, among other things. Colors can also support the well-being and thus the recovery of a patient. This is why the SUNNY color space seemed ideal for the design of a patient bathroom. The yellow and ochre tones are used in the design primarily for orientation and to identify the individual sanitary areas. → 18



active yellow



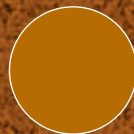
light yellow



medium yellow



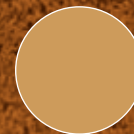
dark yellow



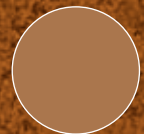
active ochre



light ochre



medium ochre



dark ochre

» The creative use of color is particularly important in healthcare construction ... «

... to create atmospheres that are conducive to recovery. Numerous studies on color psychology prove this. Ceramic tiles combine these design requirements with the demands of hygiene, cleaning, and durability. We also like to work with large-format tiles in order to minimise weak points in the joints. ChromaPlural offers an extensive range of products in a wide variety of colors.

Thomas Jedinger, Architekten Maurer & Partner ZT GmbH



Design by Architekten Maurer & Partner ZT GmbH, Vienna, Austria



warm



Expressive & elegant: oxide red and salmon

The WARM color range combines the expressive active shades of oxide red and salmon with elegant color variations in hues of brown and pink. The combination enables clear design statements without being garish and loud. Potential areas of application lie in both the living and wellness sectors, as well as in kitchens and catering.

The Swiss studio ushitamborriello specialises in upmarket interior design. In addition to hotels and restaurants, the studio also specialises in innovative wellness facilities. For ChromaPlural, studio founder Ushi Tamborriello designed an expressive wellness landscape that showcases the strengths of the WARM color space in a variety of ways. → 22



active salmon



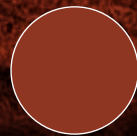
light salmon



medium salmon



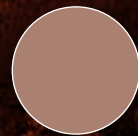
dark salmon



active oxide red



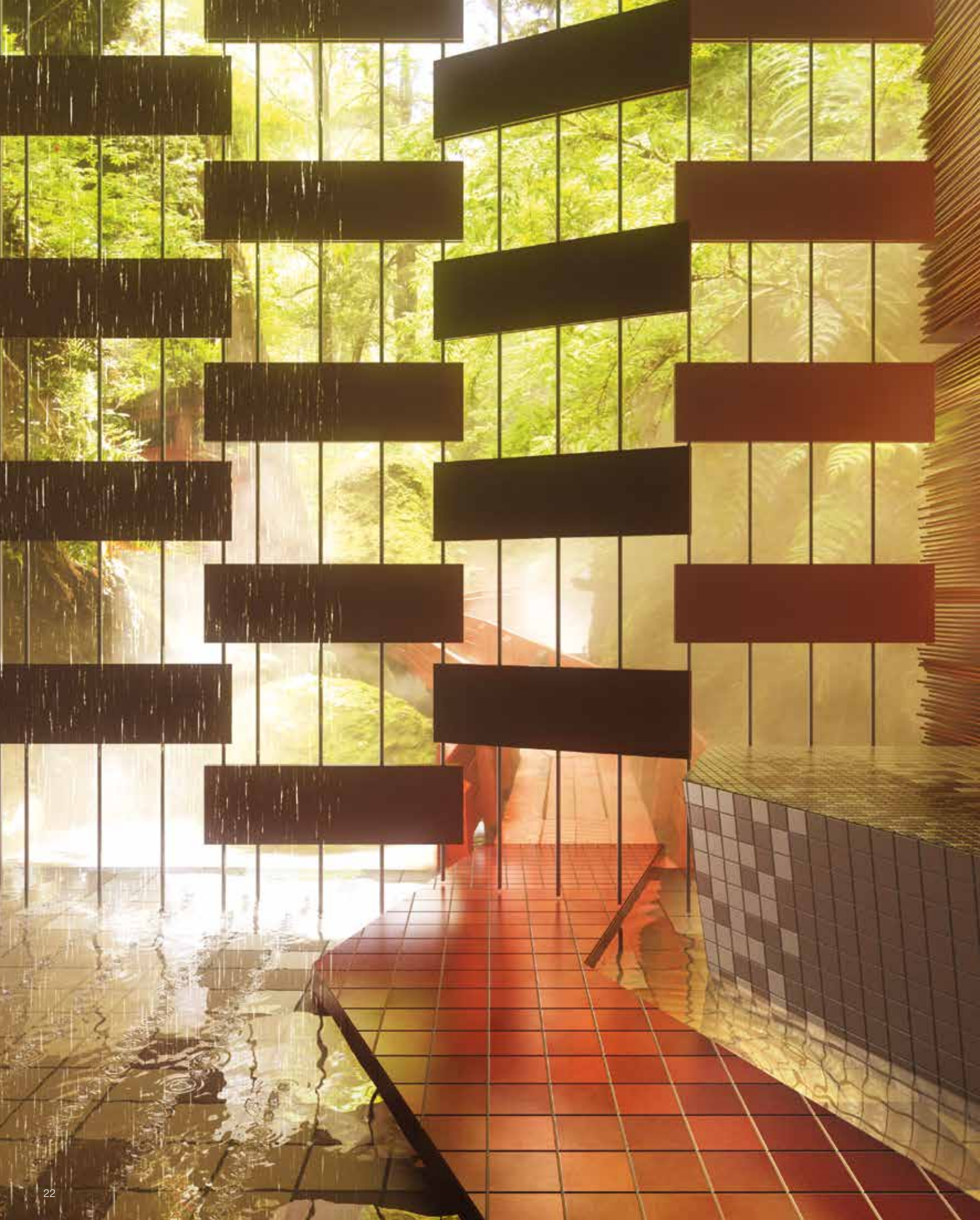
light oxide red




medium oxide red



dark oxide red





» ChromaPlural offers
the best conditions
for use in the
wellness sector. «

Wellness facilities are atmospherically dense rooms that also have the highest technical demands on changing temperatures and lighting moods, humidity and air quality, safety, and care. We used the variety of formats and color gradations of the ChromaPlural system to highlight the different areas of application and to transport the visitor into a promising world by exaggerating the perspective effect of the space. All technical requirements – including “non-slip” tiles in permanently wet areas – could also be met with ChromaPlural. Hardly any other material would have enabled us to fulfil these various aspects in this quality.

Ushi Tamborriello

Design by ushitamborriello_Innenarchitektur_Szenenbild, Baden, Switzerland

Representative & noble: stone grey and sand grey

The EARTHY color range sets subtle yet elegant nuances. The color spectrum ranges from stone grey to sand grey and has been specially defined for the prestigious business sector. However, private sanitary and kitchen areas of a higher standard as well as hotels and restaurants are also predestined areas of application.

Agrob Buchtal was able to win the design office 3deluxe for the implementation of the color space in a spatial concept. Based in Wiesbaden, Hamburg and Shanghai, 3deluxe works at the interface between design, architecture, and pop culture. Its fields of work also include the area of corporate architecture – 3deluxe designed a sanitary area in the business sector for ChromaPlural. → 26



active stone grey



light stone grey



medium stone grey



dark stone grey



active sand grey



light sand grey



medium sand grey



dark sand grey

earthy





Design by 3deluxe, Wiesbaden / Hamburg, Germany

» We appreciate
Agrob Buchtal
for its sophisticated
system solutions. «



With its new color and format system, ChromaPlural not only offers us a high degree of design freedom in terms of color and format, but also the possibility of adapting these to the respective areas of application, e.g. by increasing slip resistance.

Matthias Sütterlin, 3deluxe



Contrasting & graphic: from black to white

Neutral is not a color, but the overall effect of this color space radiates objectivity and enables versatile combinations with other color

spaces. The color scale here runs from black to white – in ten shades of grey. The extremely soft gradations allow a finely-tuned interior design. This very graphic range of colors can be used to create high-contrast settings and discreet refinement.

The Dutch architecture firm NIO Architects has developed an extreme version of the color space as a monochrome room concept. The architects from Rotterdam are known for their unusual everyday architecture for traffic constructions and bridges. For ChromaPlural, the office designed an underground station in the ten shades of the neutral color space in a small 10 x 10 cm format. → 30

neutral grey



neutral 10
active white



neutral 9
white grey



neutral 8
light grey



neutral 7
pebble grey



neutral 6
pearl grey



neutral 5
basalt grey



neutral 4
graphite black



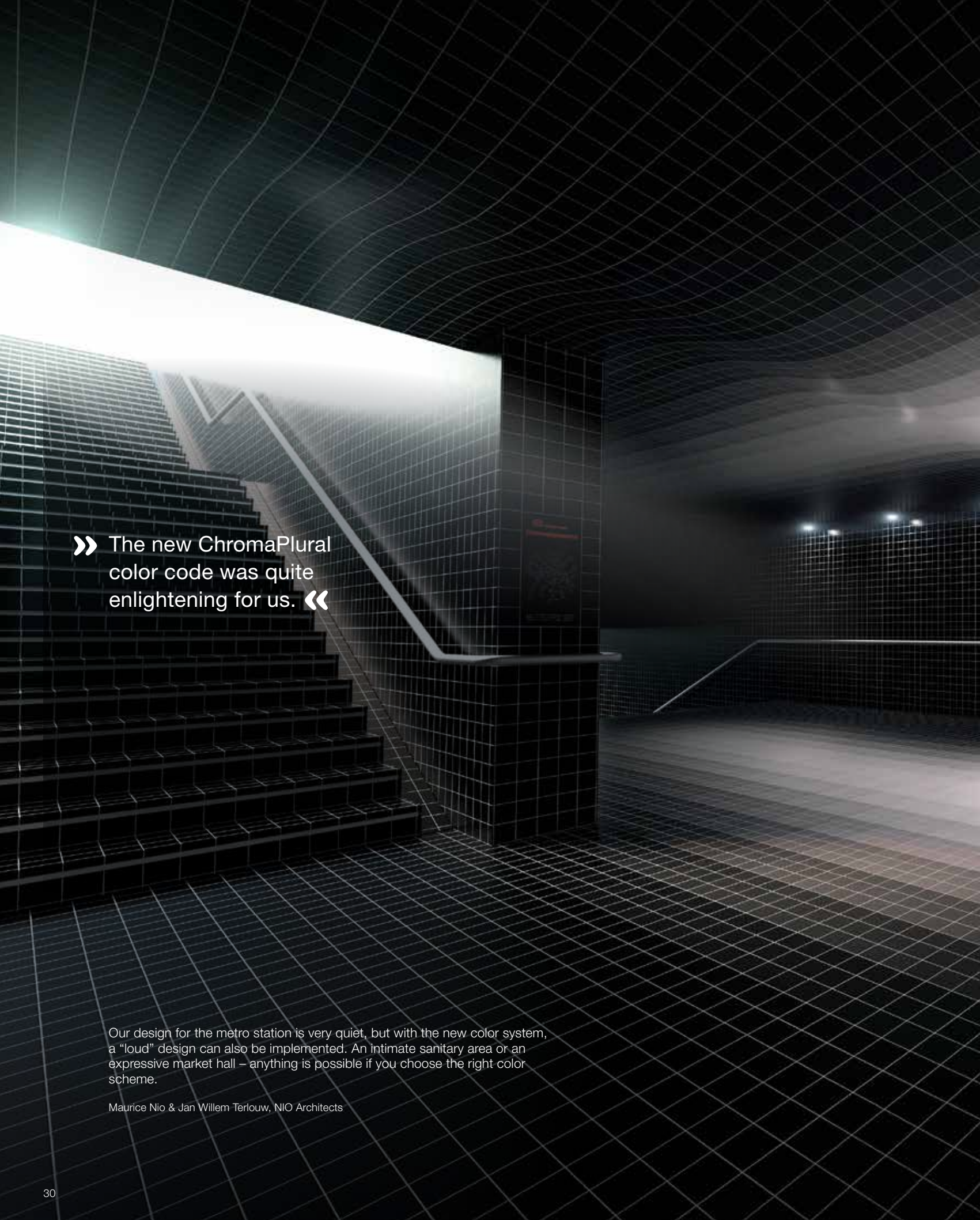
neutral 3
asphalt black



neutral 2
anthracite



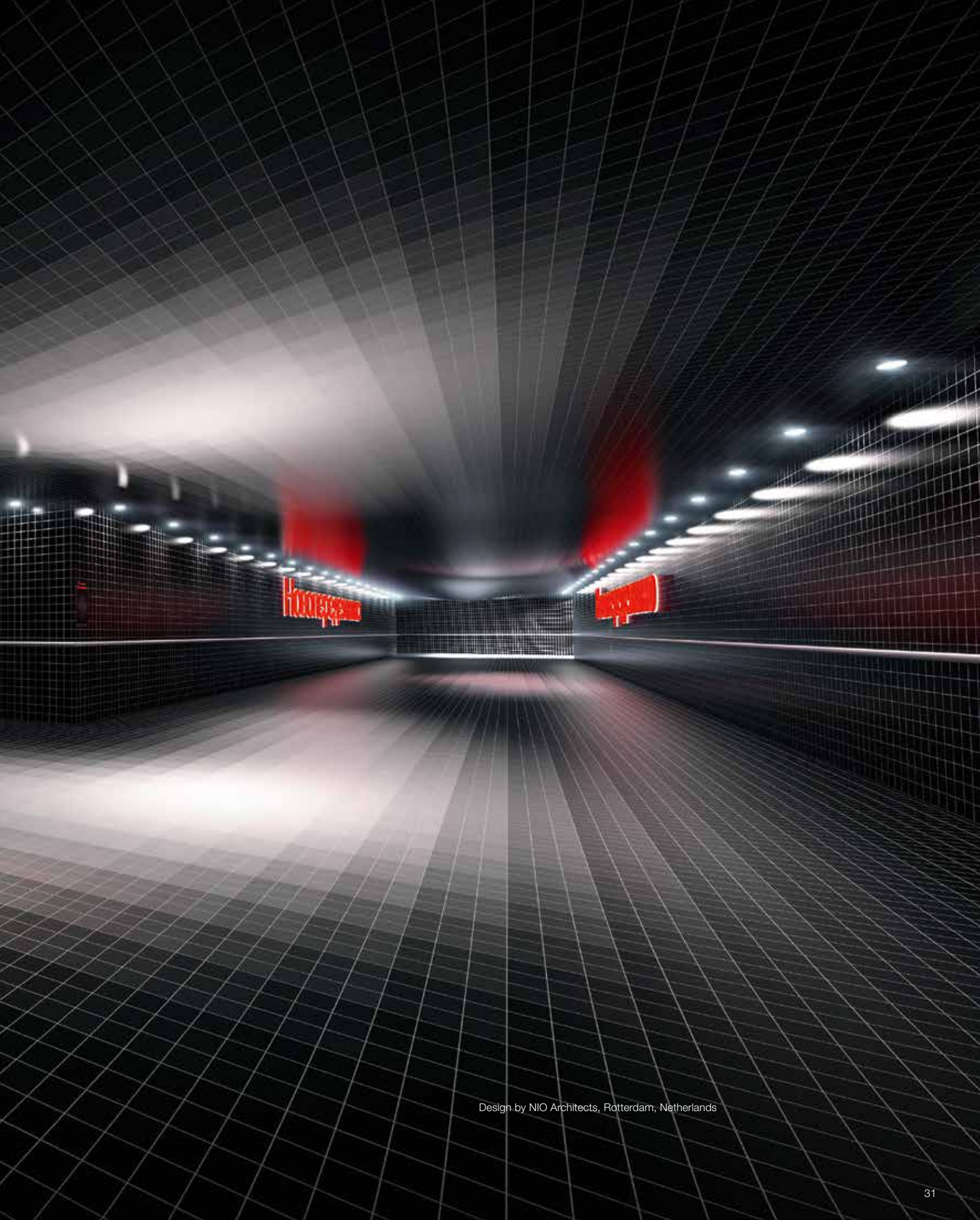
neutral 1
deep black



»» The new ChromaPlural color code was quite enlightening for us. ««

Our design for the metro station is very quiet, but with the new color system, a "loud" design can also be implemented. An intimate sanitary area or an expressive market hall – anything is possible if you choose the right color scheme.

Maurice Nio & Jan Willem Terlouw, NIO Architects



Design by NIO Architects, Rotterdam, Netherlands

» It's about color spaces
that accompany architecture. «

Peter Zoernack, color designer

The UNICOLOR color system

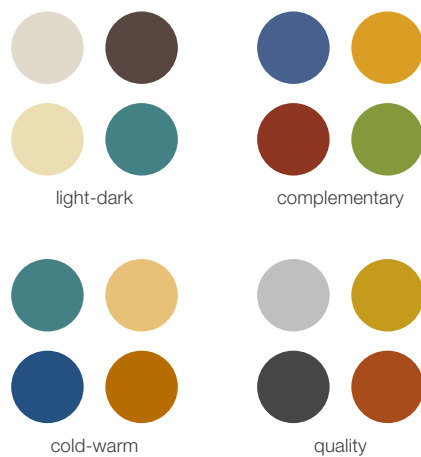
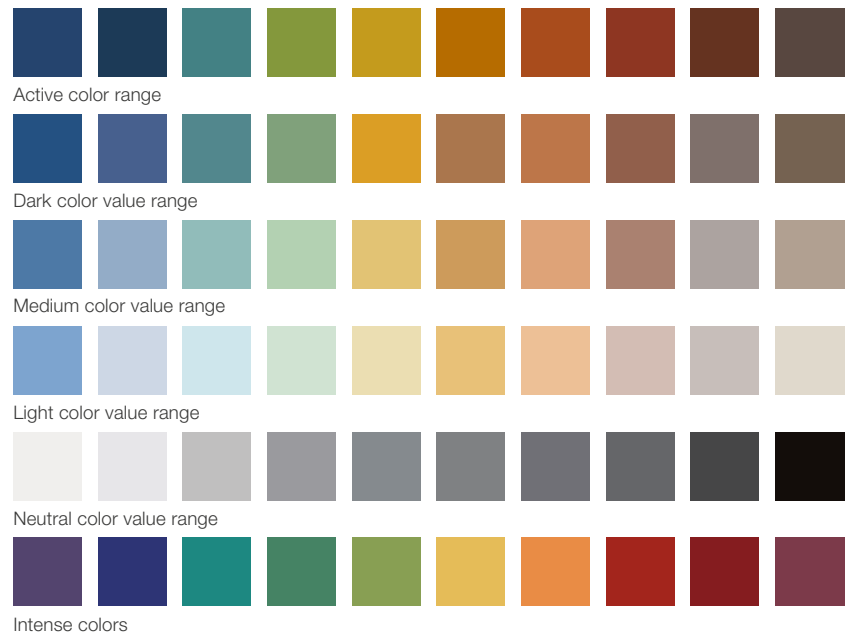
Agrob Buchtal developed the UNICOLOR color system together with the German color expert Peter Zoernack. “Ideally, the color follows the shape”, is how he describes the guiding principle of ChromaPlural.

UNICOLOR is intended to support spatial effects and not gloss over them. The color concept therefore focuses primarily on graduated colors and creates a colorful overall tone. In addition, the color scheme inspired by nature corresponds to the natural origin of the ceramic material. The arrangement of the ten color families in the color wheel makes the unity of the concept apparent at first glance. The intensive colors are also characterised by their high color saturation and radiant luminosity. These striking colors are both timeless and contemporary, opening up countless design possibilities.



The triad principle

Each of the ten UNICOLOR color families is differentiated in light, medium and dark shades. The principle of the triad is enriched in each case by an activation color, which increases color intensity, and a neutral shade on the grey scale. The dark and active shades are particularly suitable as line colors and the lighter shades as surface colors. In addition, the new intensive colors offer color-harmonious or accentuating combination options.

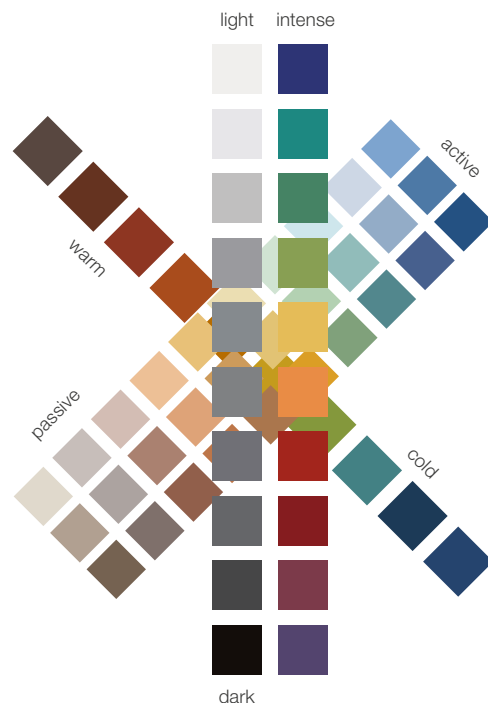


Contrasts as a design instrument

In addition to grouping rows of colors into color spaces based on common moods, the UNICOLOR color system also offers the possibility of using contrasts to great effect. Contrasts are created here through complementary colors and varying levels of brightness, as well as through the contrasting combination of color shades in different veiling qualities or the mixture of warm and cold color shades.

Design axes for determining color shades

In addition to the color wheel, the so-called design axes are another tool for determining color shades. The 60 color shades of the UNICOLOR concept are arranged here along the axes "light-dark", "warm-cold", and "active-passive". This makes it easier to determine the right color shade.



Modular elements for all areas of application

Plural

Formats



Plural
Earthenware
Wall

15 x 30 x 0.65 cm
20 x 40 x 0.75 cm
30 x 60 x 0.9 cm

Plural
Stoneware
Floor/wall

2.5 x 2.5 x 0.65 cm
5 x 5 x 0.65 cm
10 x 10 x 0.65 cm
10 x 20 x 0.65 cm
10 x 30 x 0.6 cm
12.5 x 50 x 0.8 cm*
12.5 x 100 x 0.8 cm*
15 x 15 x 0.65 cm
20 x 20 x 0.65 cm
25 x 50 x 0.8 cm*
30 x 30 x 0.8 cm*
30 x 60 x 0.8 cm*
50 x 100 x 0.8 cm*
Coving
10 x 10 x 0.65 cm
Internal/external corner
10 x 1.8 x 0.65 cm

*rectified

Plural non-slip
Stoneware
Floor/wall
R10/B

2.5 x 2.5 x 0.65 cm
5 x 5 x 0.65 cm
10 x 10 x 0.65 cm
20 x 20 x 0.65 cm
30 x 60 x 0.8 cm
Shower tray system runner
10 x 10 x 0.65 cm
Shower tray system corner
10 x 10 x 0.65 cm
Coving
10 x 10 x 0.65 cm
Internal/external corner
10 x 1.8 x 0.65 cm

Plural unglazed
Porcelain stoneware
Floor
R10/B, R11/C

2.5 x 2.5 x 0.65 cm
5 x 5 x 0.65 cm
10 x 10 x 0.65 cm
15 x 15 x 0.65 cm
20 x 20 x 0.65 cm
30 x 60 x 0.6 cm
Shower tray system runner
10 x 10 x 0.65 cm
Shower tray system corner
10 x 10 x 0.65 cm
Coving
10 x 10 x 0.65 cm

Chroma

Formats



Chroma
Stoneware
Floor/wall

6.2 x 25 x 0.6 cm**
12.5 x 12.5 x 0.6 cm**
12.5 x 25 x 0.6 cm
12.5 x 50 x 0.8 cm*
25 x 25 x 0.6 cm
25 x 50 x 0.8 cm*

* rectified
** Supplied as double tiles;
need to be broken on site.

Chroma non-slip
Stoneware
Floor
-/B, -/C

12.5 x 12.5 x 0.8 cm*
12.5 x 25 x 0.8 cm
25 x 25 x 0.8 cm

* Supplied as double tiles;
need to be broken on site.

**Chroma
unglazed – Quantum**
Stoneware
Floor/wall
R10/A; R10/B; R11/B

12.5 x 12.5 x 0.8 cm**
12.5 x 25 x 0.8 cm
25 x 25 x 0.8 cm
25 x 50 x 0.8 cm*

Floor
Grid profile
12.5 x 12.5 x 0.8 cm**
12.5 x 25 x 0.8 cm
25 x 25 x 0.8 cm
25 x 50 x 0.8 cm*

Shower tray system runner
12.5 x 12.5 x 1.8/0.8 cm
12.5 x 25 x 1.8/0.8 cm

Shower tray system corner
12.5 x 12.5 x 1.8/0.8 cm

Safety strip tiles
6.2 x 25 x 0.8 cm

Skirting element
7.9 x 25 x 0.8 cm

Coved skirting
12.5 x 25 x 0.8 cm

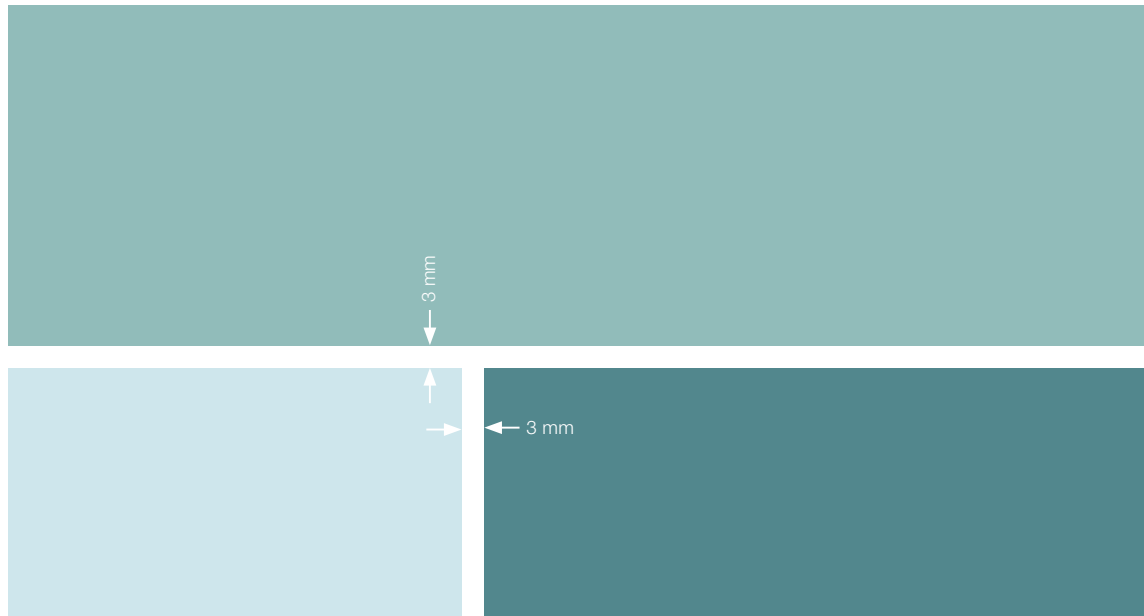
Internal angle
11.9 x 12.5 / 1.2 x 0.8 cm

External angle
13.1 x 12.5 / 1.2 x 0.8 cm

* rectified
** Supplied as double tiles;
need to be broken on site.

Plural – Precision in detail with slim 3 mm joints

In order to be able to realise sophisticated room concepts regardless of the tile format, the joint width is reduced to a slim 3 millimetres for all Plural products.



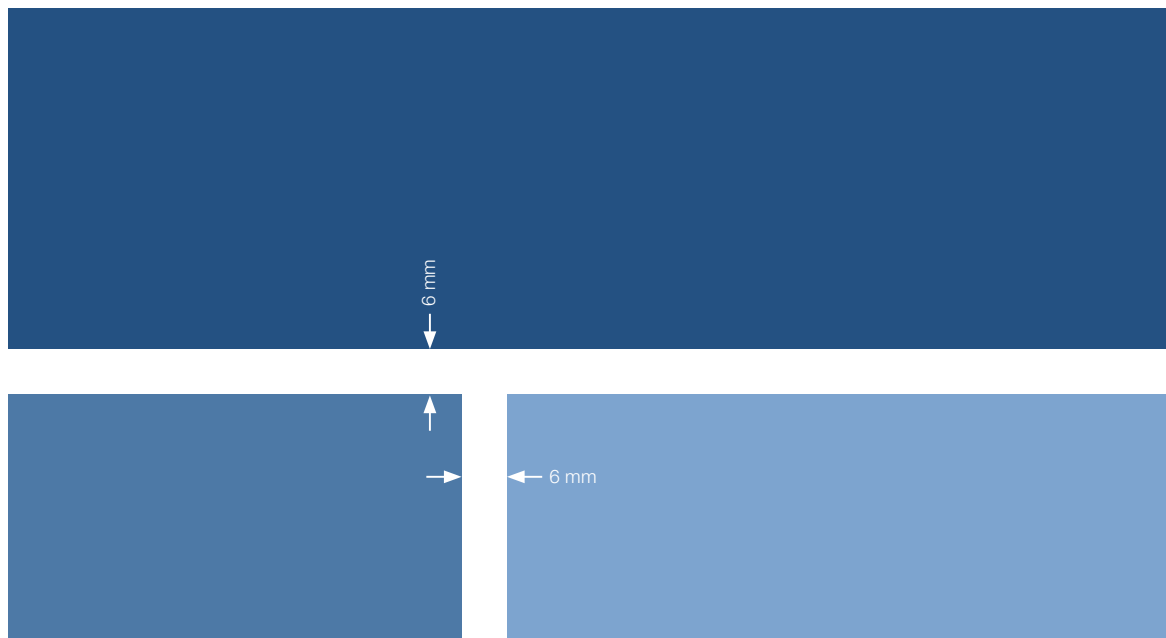
Meerbad, Meerbusch, Germany / Architect: Planteam Ruhr / Photo: Jochen Stüber

Chroma – Perfect in the pool, 6 mm joints

6 mm joints are the dimension of choice in the Chroma series specially developed for pool design, as they comply with the prevailing special load-bearing capacity in this area. This wider but more stable joint also enables a continuous connection to special pool mouldings such as large pool coping stones.



Oasia Hotel, Singapore / Architect: WOHA Architects + Patricia Urquiola / Photo: Infinitude, Singapore



Non-slip safety guaranteed: for swimming pools and commercial applications

The "GRIP seal of quality", with which tiles of the ChromaPlural system are also labelled, stands for Agrob Buchtal's many years of experience in the field of slip resistance.

Slip-resistant floor tiles are required by law for a large number of commercial uses such as work or sales rooms. Swimming pools are also subject to special regulations regarding the use of tiles in barefoot areas in order to avoid slip accidents. The ChromaPlural range



Barefoot area

Assessment groups

Angle of inclination

A

$\geq 12^\circ$



B

$\geq 18^\circ$



C

$\geq 24^\circ$



Studio image, Plural non-slip series

therefore includes tiles in the slip-resistance categories R9, R10 and R11 for the commercial sector and in the rating groups A, B and C for use in swimming pools.

For use in water – such as for stairs or wade pools – the Chroma non-slip series also offers versions in slip-resistance group C.

→ Further information on swimming pool ceramics can be found in the current Pool + Spa product range.



SLIP RESISTANCE
OF AGROB BUCHTAL

Commercial applications

Assessment groups	Angle of inclination	
R9	> 6° - 10° low coefficient of adhesion	
R10	> 10° - 19° increased coefficient of adhesion	
R11	> 19° - 27° high coefficient of adhesion	
R12	> 27° - 35° very high coefficient of adhesion	
R13	> 35° normal coefficient of adhesion	

Studio image, Plural unglazed series

Hytect hydrophilic tiles for perfect hygiene

Hytect technology is durably baked into the ceramic surface at high temperatures. When light falls on the coated tiles, active oxygen is released via photocatalysis. This provides the effect against bacteria and mould. At the same time, Hytect tiles neutralise pollutants in the air in an entirely natural manner.

And because they are also hydrophilic, it is hard for dirt or grease to gain a foothold. All of these effects continue to apply across the entire life cycle of the tiles. Thanks to an extensive range of products, Hytect ceramics can be used in a wide variety of areas. Our products finished with our Hytect technology bear the Hytect logo.

Hytect – the innovative solution

Hytect tiles can make a significant contribution to hygiene and feasibility, as they help to

- slow the growth of mould, bacteria and other microorganisms,
- further facilitate cleaning of the surface,
- break down air pollutants and odours in indoor applications.

And all of this merely through the effects of light!

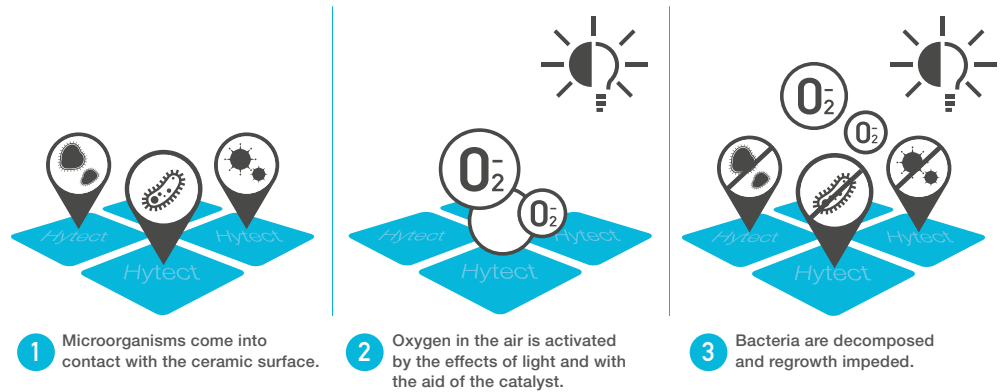


Ägeribad, Oberägeri, Switzerland
Architect: Scheitlin Syfrig Architekten AG / Photo: Adriano Faragulo

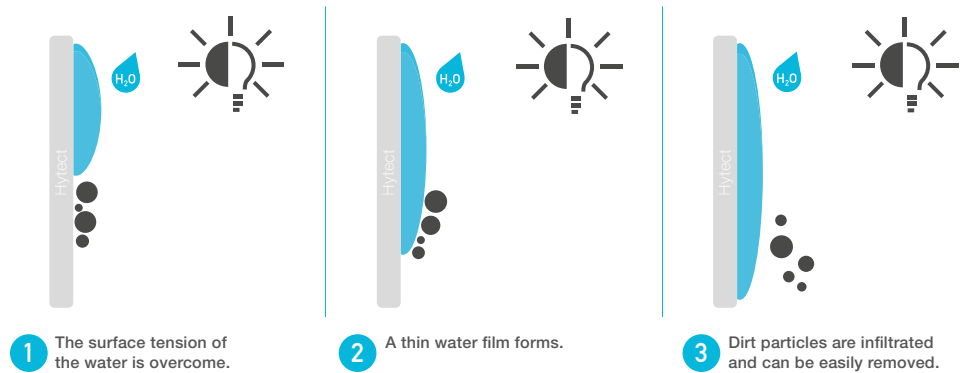


Pirbadet, Trondheim, Norway
Architect: Per Knudsen Arkitektkontor / Photo: Synlig design og foto as

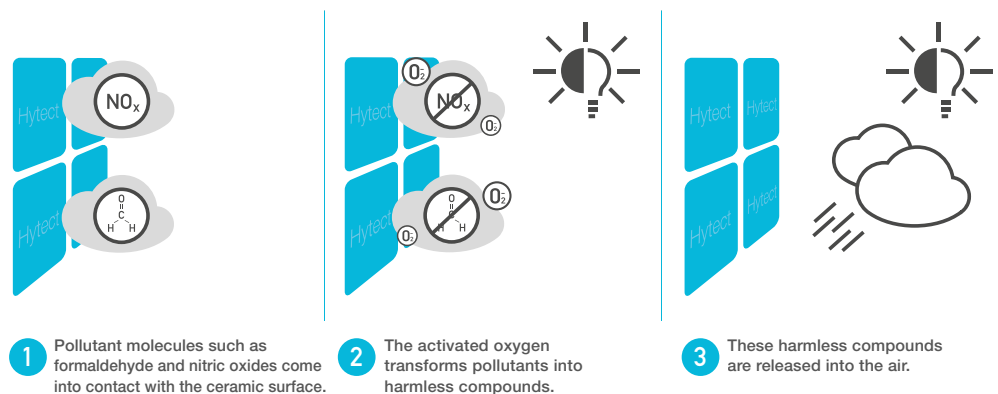
Effective against mould and bacteria



Extremely easy to clean



Active breakdown of air pollutants



Go to the Hytect film:



More information:
www.hytect.com

Swimming pool ceramics from the specialist

Complementary swimming pool ceramic products such as Chroma Pool with additional pool-specific colors, large-format pool surrounds, and moulded parts for swimming pool construction can be found in our Pool + Spa product range and in special application brochures. The range extends from innovative pool head systems and ceramic channel covers to slip-resistant stair solutions.





Tinnerbäcksbadet, Linköping, Sweden
Architect: 3XN / AgnasARK / Winell Jern
Photo: Rasmus Hjortshøj

Further information is available
in our Pool + Spa product range:



Agrob Buchtal Solar Ceramics GmbH
Buchtal 1, D-92521 Schwarzenfeld
Tel.: +49 (0) 94 35-391-0
Fax: +49 (0) 94 35-391-34 52

E-mail: info@agrob-buchtal.de
Internet: www.agrob-buchtal.de

www.assenmacher.net

03/2025

