



CONSERVATION AND DESIGN

# MANGALEM 21

A Project from OMA



„Finding a pallet of 24 different colors that fulfill our requirements for longevity and color stability was an achievement in itself.“

Reinier de Graaf



OMA

The Rotterdam Office for Metropolitan Architecture (OMA) is one of the world's most influential firms for architecture and urban planning. OMA develops projects in cooperation with AMO, the affiliated but independent design and research studio. The focus is always on thinking architecture one step further, moving away from conventions and discovering new perspectives in a process of constantly changing conditions.

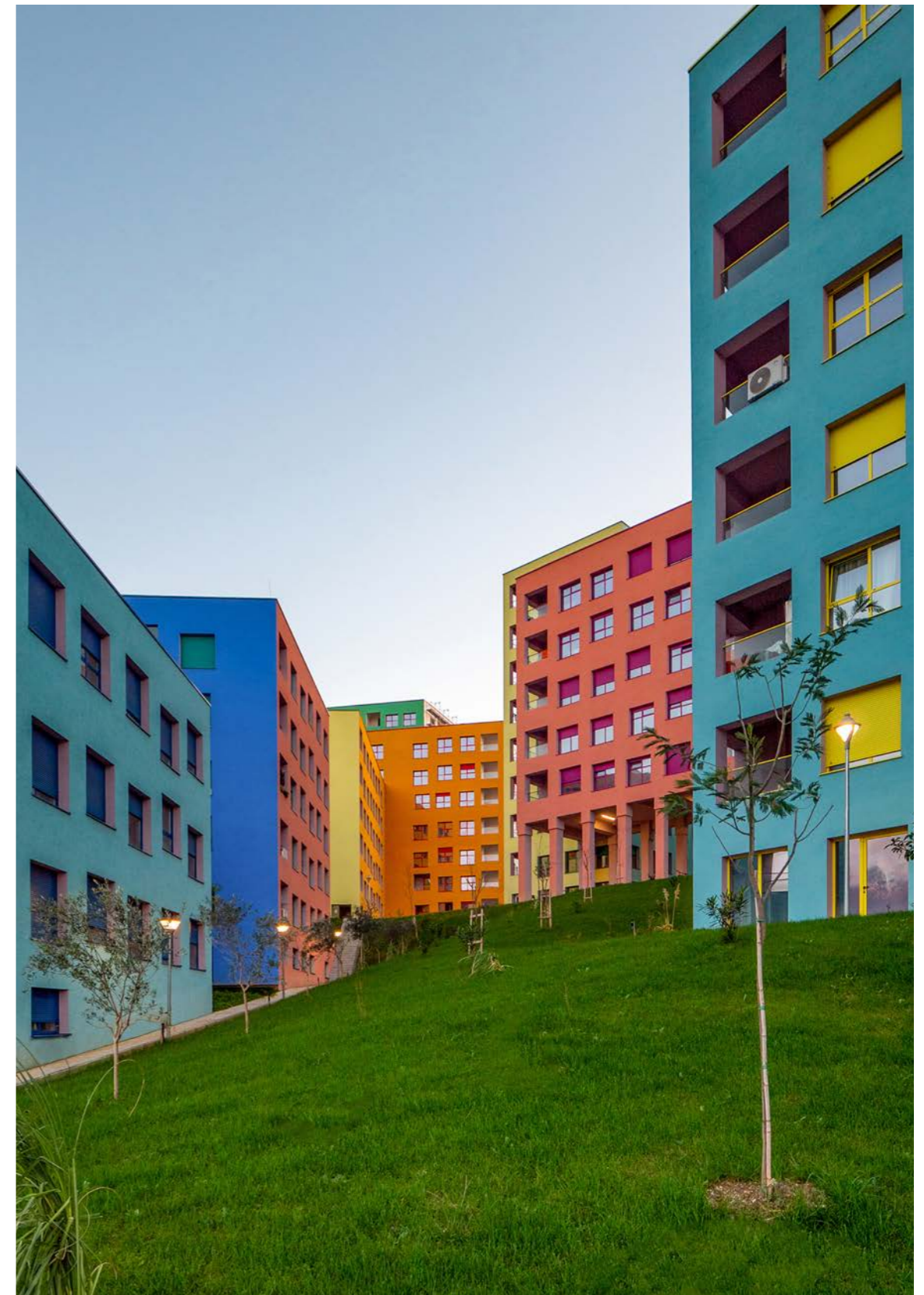
OMA's (X)XL planning visions are often tantamount to small towns in their own right. The Mangalem 21 project presented in this special edition of „Conservation and Design“ is on a similarly huge scale. At the explicit request of OMA, the demanding and equally extraordinary colour concept was achieved with mineral products by KEIM.

[www.oma.com](http://www.oma.com)

# COLOURED COURTYARDS

MANGALEM 21

On the outskirts of Tirana, OMA has realised the largest housing project since the fall of the communist regime.





To give the ensemble of around 1200 apartments a varied structure, the architects advocated a broad mixture of different-sized layouts, a sophisticated colour concept – and KEIM’s proven luminosity and colour stability.

When the company “Kontakt” constructs large residential projects in Albania’s capital, they always turn to architects of international renown. Following the master plan developed by Daniel Libeskind for a district in the west of Tirana which entailed the construction of two key buildings, it has now been OMA’s turn to complete a complex with 1234 apartments in the eastern part of the city.

The plot is about 30 minutes’ walk from the city centre, bordering on open countryside and surrounded by informal settlements from the 1990s and housing blocks from the communist era. For a long time, the site remained undeveloped due to the steep gradient: the difference between the lowest and the highest point is 27 meters, which is equivalent to 9 or 10 storeys.

## CHEQUERBOARD URBAN PLANNING

Here the OMA team has arranged buildings in a kind of chequerboard pattern. Housing blocks are positioned close together, touching at the corners and enclosing altogether 24 inner courtyards. This highly compact structure allowed for the best possible use of the plot, thus keeping the apartment prices down. Thanks to the sloped terrain, the top apartments always look into the distance with views extending over the lower buildings.

Flights of stairs and car-free paths run through the complex so that children can play outside safely. Cars disappear in an underground car park. Instead of a road, a wider main path for pedestrians and cyclists meanders through the development running parallel to the slope, lined by small shops such as a pharmacy, a flower shop and a small supermarket. Sometimes the path crosses open courtyards, sometimes it becomes part of the buildings as a two-storey shady colonnade. Here the promenade opens to the left, there to the right, with surprising perspectives at every turn.



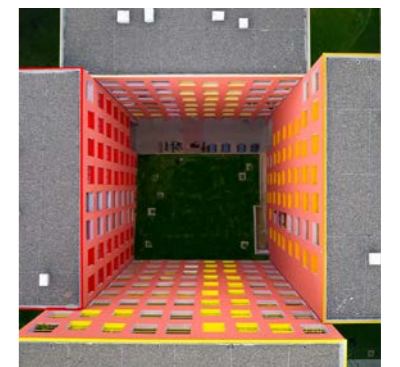
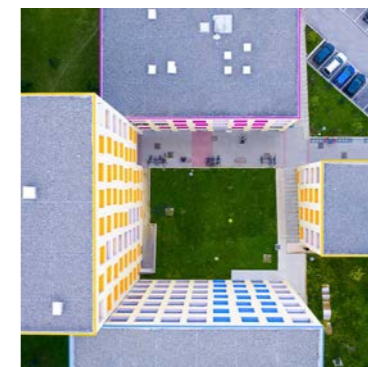
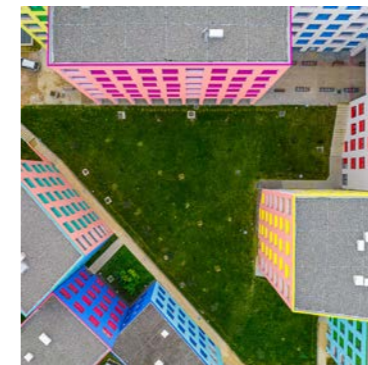
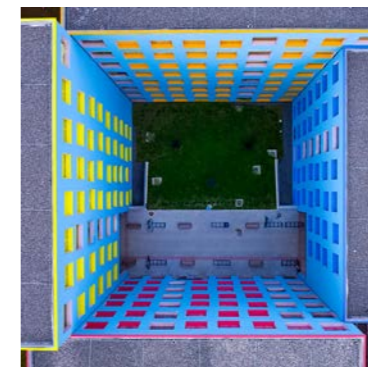
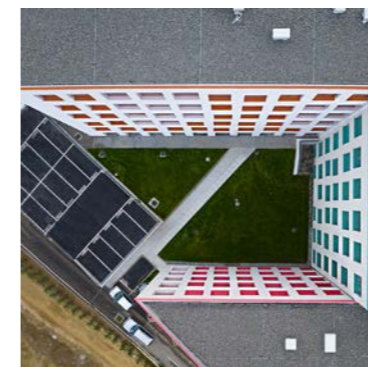
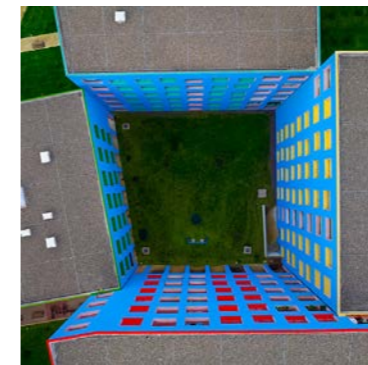
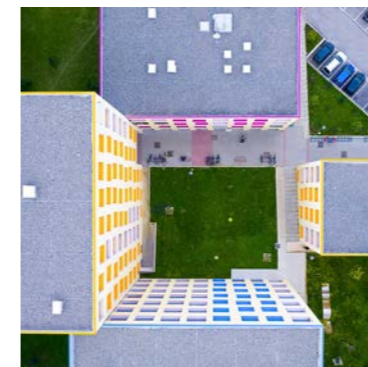
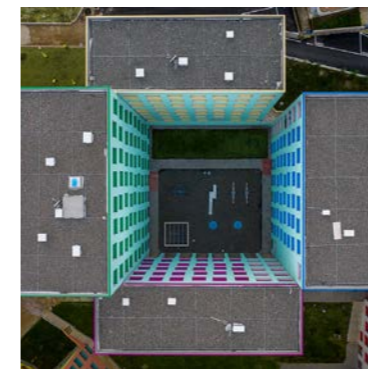
Viewed from the valley, the complex doesn't seem compact at all. Instead, it looks like a collection of free-standing cube-shaped buildings staggered up the slope. This creates a similar picture to the neighbouring estates, blending compatibly with the surroundings despite the high density.

### UNITY AND DIVERSITY OF THE ARCHITECTURE

One special feature of the chequerboard site plan consists in the tangent corners of the buildings, which OMA aptly call "Kissing Corners". They often occur where staircases and lifts are positioned, but there are also apartments above the colonnades on the main path whose rooms span two different buildings. Corner windows belong to the same apartment on either side, thus reducing the risk of people being able to see what the neighbours are doing.

The architects have designed the apartments with a wide range of variety that allows the greatest possible individual scope, extending from compact mini-apartments to units with two, three and generous four rooms. Buyers can also choose between various options within a certain type. The two-room apartments, for example, are available with floor space between 51 and 75 m<sup>2</sup>, depending on the budget available.

Similarly, the exterior also presents a differentiated impression, achieved with very simple means. In the interest of rational production, the windows are all the same, and yet they seem to dance across the façades.



Kissing Corners

— The historical, UNESCO protected Mangalem district is called the *City of 1000 Windows*.

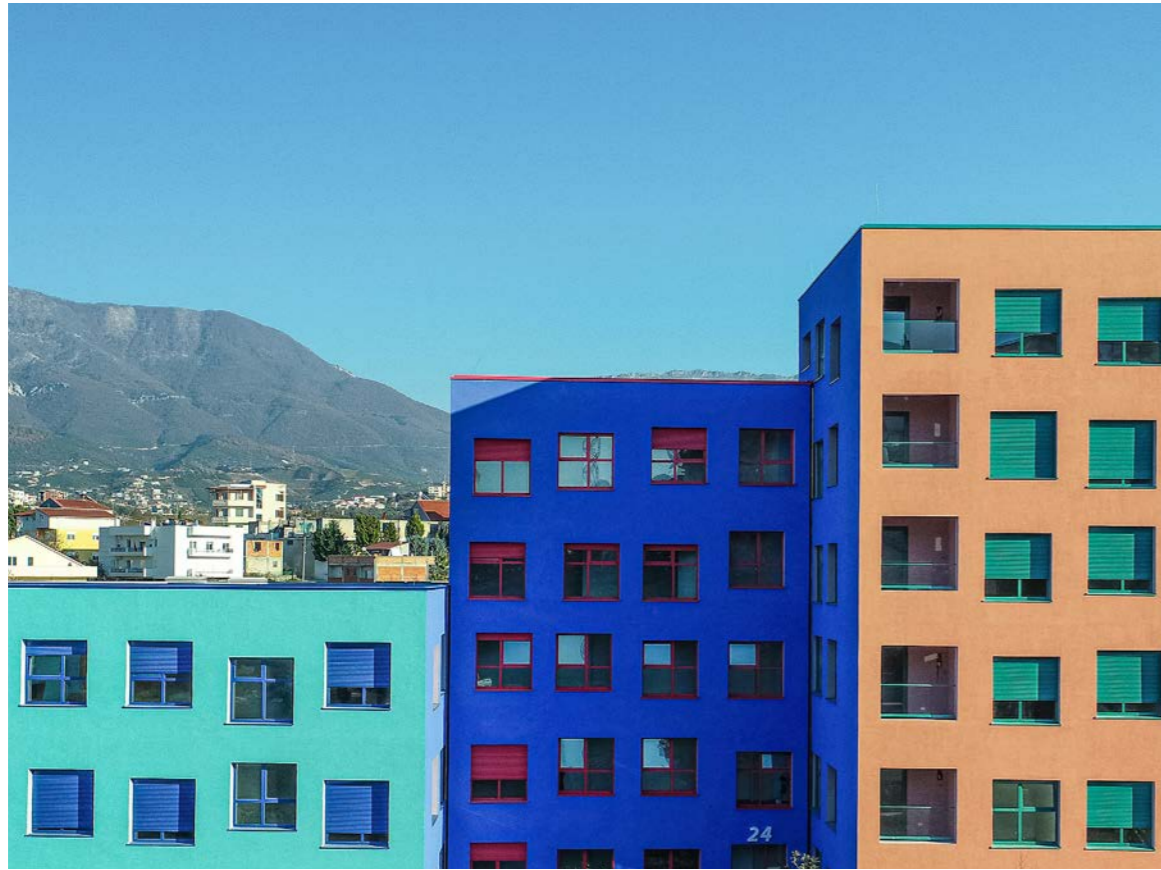


The large portion of openings in the exterior walls is striking. The project was inspired by an example from Albania's construction history with similar starting conditions: this refers to the UNESCO World Heritage site known as "Mangalem", located around 100 km south of Tirana in the tourist centre of Berat. Here too, the buildings are staggered up a steep slope and make the most of the view with an unusually large number of big windows. Back in the mid-1900s when the houses were built, such concentrated fenestration was still a rarity and resulted in the popular name "Town of a Thousand Windows". In tribute, OMA's reinterpretation of this building style in Tirana has been given the aspiring title "Mangalem 21".



As a homage, OMA's reinterpretation bears the ambitious title *Mangalem 21*.





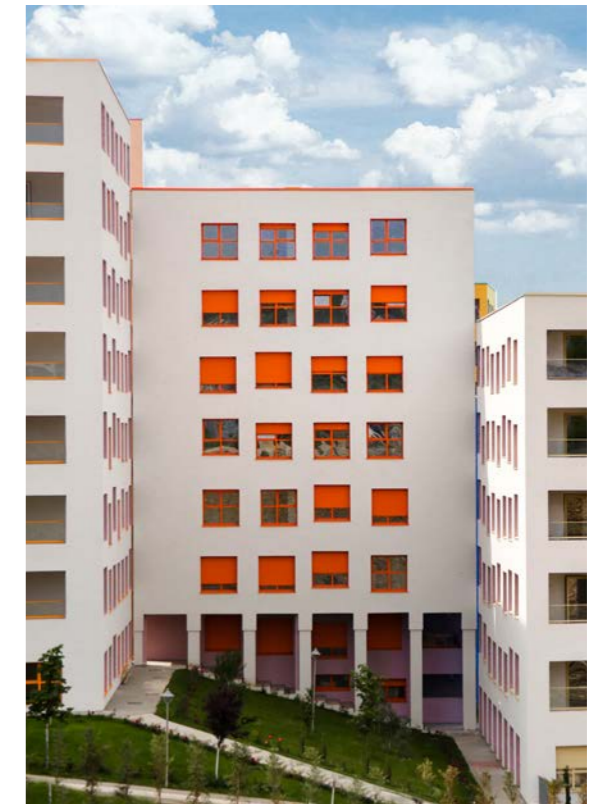
### COLOUR AS INDIVIDUALISATION TOOL

Another role model for OMA's housing project is the approach taken by Tirana's former mayor Edi Rama for transforming the city at the start of the 21st century. In the midst of the anarchic conditions prevailing after the end of the communist era, the former artist and current Prime Minister of Albania wanted to set a sign that things were changing for the better, and had the grey apartment blocks painted in bright colours. He advocated the power of colour in urban space and used it as an instrument of social policy. Compared to other cities, Tirana today stands out with its unique, unusually strong colour scheme.

OMA has taken this Genius Loci as its concept for "Mangalem 21". Façades in deep blue, vivid green or rich turquoise try to outshine each other. Furthermore, the architects also use colour as a low-cost means of giving the housing complex a differentiated structure while concealing its size. Every building has a different colour for the window frames, shutters and parapets, thus subtly underlining the individual character of each single house.

What is far more eye-catching is that every courtyard has a different peripheral wall colour. When walking through the estate, the courtyard colour changes from salmon to petrol or orange – each of these outdoor areas has its own character and gives the adjoining apartments a strong sense of identity. 24 different coloured shades have been used here. The largest courtyard stands out as a special meeting point for the quarter and is surrounded by golden façades that glitter gently in the sun.

At the same time, the ensemble is held together in design terms by the half-open courtyards around the edge all being painted white. And the window and door reveals of all the buildings together with the inner sides of the colonnades are coated with uniform rose-coloured paint, a delicate nuance that runs "like a pink thread" through the entire project. The colours too therefore achieve a balance between diversity and uniformity. They also underline the urban planning concept by putting greater emphasis on the individual courtyard than on the individual building.





## COLOUR AS A PROCESS – SEARCHING FOR THE RIGHT NUANCES AND MATERIALITY

The colour scheme that included some very strong intensive shades soon made it clear that mineral coatings should be chosen for the surfaces. While the binder always causes a certain milkiness in other renders and paints, which isn't a problem for pastel shades, mineral renders and paints are ideal for creating highly saturated colours. To ensure they don't lose their intensity and luminosity over the years, OMA suggested using products by KEIM that are known for durability and colour stability.

The architects selected a palette of 24 different colour shades and sent the required RAL values to the manufacturer. Two of the shades were already in the product range, while the others had to be mixed individually. But inorganic pigments aren't necessarily available for every nuance that satisfy the producer's high demands in terms of colour stability when it comes to withstanding the strong sunlight in Tirana. As a result, the colour selection had to be modified slightly. Neon shades, for example, were ruled out. The manufacturer produced 24 hand-painted sample surfaces on fibre cement backing plates and sent them to the architects. This developed into a lively exchange between KEIM and OMA that lasted several months until the colour concept was finalised. In the end, the samples were fixed in triplicate – one for OMA in Rotterdam, one for the building site in Tirana and one for KEIM's archive in Diedorf.

Reinier de Graaf, project leader and partner at OMA, recalls the selection process: "The aim was to achieve the greatest possible diversity within the colour palette, while ensuring at the same time that the façades would last as long as possible. The choice of colours was limited by factors such as UV-resistance which we improved with mineral-based pigments, or heat absorption which we reduced with lighter colours. After all, render applied to an ETICS absorbs all the solar heat, which can cause cracks. Finding a palette with 24 different colours that all met these requirements was an achievement in itself."





In the end, the sol-silicate render *Stucasol* was chosen from the range of different paint materials. The coating was imbued intensively and applied as 1.5 millimetre textured render. Any minor damage to the surface incurred during daily use won't really be noticed. The render is supplied as a ready-to-use product in buckets so that its application remains unaffected by the imponderables of manual mixing on site. This ensured that the colours corresponded exactly with those agreed in advance. *Stucasol* was also used for the white façades.

The golden hue for the central courtyard was produced by a combination of render and a subsequent glaze. The *Brillantputz* render imbued in a shade of ochre (9049) was given two top coats of undiluted *Designlasur Metallic* decorative glazing in the colour gold.

— „We incorporated this idea in the preliminary design phase, roughly in April 2017“

Reinier de Graaf, Partner in the OMA office

## SUMMARY AND OUTLOOK

The colour scheme for this ensemble of buildings is an integral part of the architecture, rather than just being a subsequent add-on. Consideration was given to the role that colour would play already at a very early stage of the planning process: “We incorporated this idea in the preliminary design phase, roughly in April 2017”, reports Reinier de Graaf.

It is above all the strong colours that develop a special radiance. The façades reflect the direct sunlight and bathe the outer surfaces including the apartment loggias in coloured light that keeps changing as the day progresses. This effect is particularly noticeable along the main path, with the various courtyards in their different colours lined up like a string of pearls.

The main path will become even more important in future, because a new main road is being planned on one side of Mangalem 21. When this is finished, the path through the estate will provide convenient, pleasantly quiet access from the busy road through the estate past the shops out into the countryside.

## INTERVIEW WITH THE CLIENT




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**ARDIT BEKTASHI**

Joint owner of the building contractor *Kontakt* in Tirana

**Mr Bektashi, why did your company choose OMA as architects for this project?**

OMA is one of the top ten firms of architects in the world. As far as we're concerned, they're the only architects we would entrust with a construction project covering 120,000 m<sup>2</sup>. OMA's team is experienced and professional, devoted to detail and loves Albania. They wanted to make a statement in Albanian architecture, and that inspired us.

— „We didn't question the slightly higher investment involved, because KEIM is a very good product. It gives variety and life to Mangalem 21.” Ardit Bektashi

**What are the apartments in Mangalem 21 going to cost?**

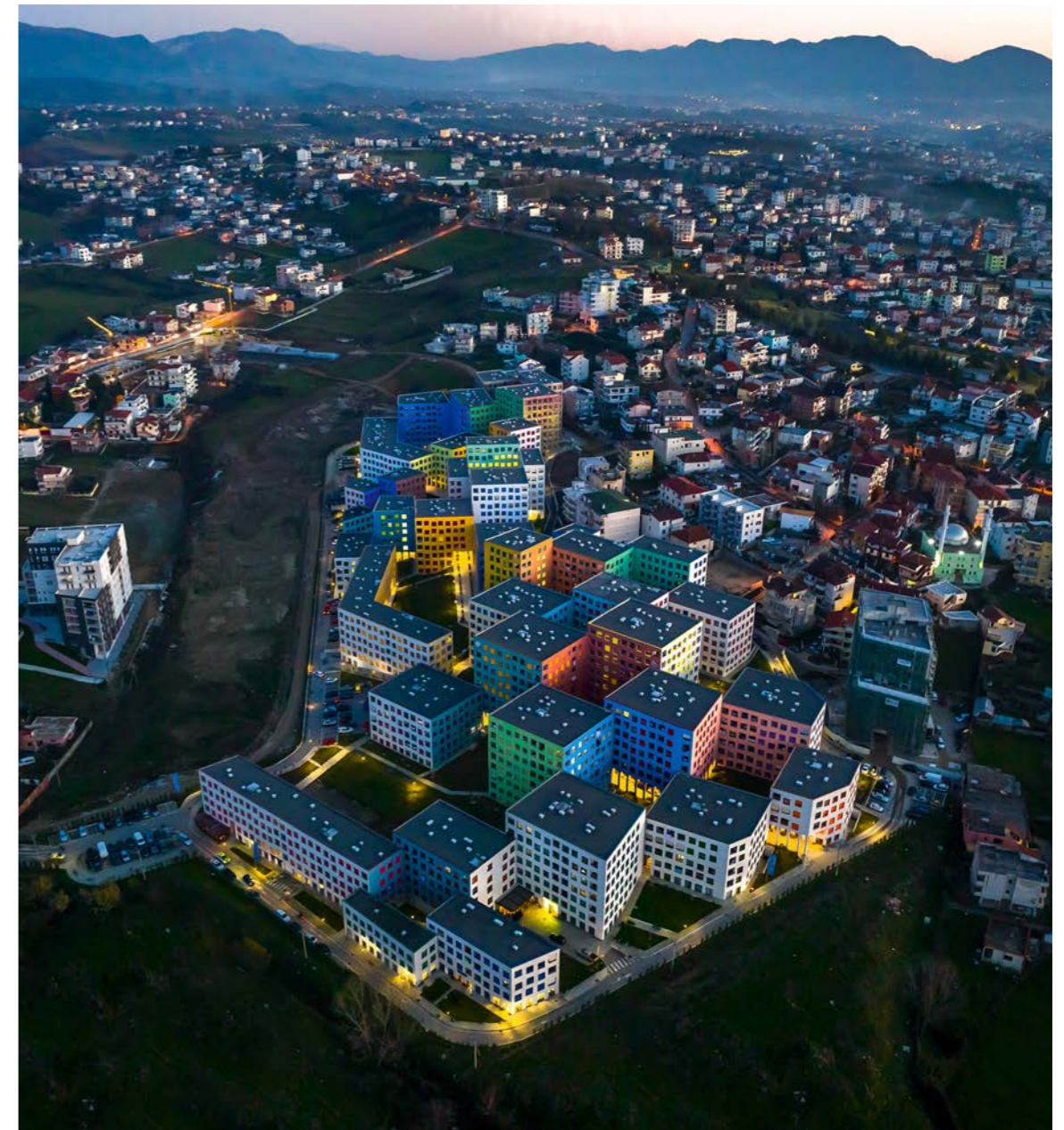
The apartments have average prices, although we've used top quality products. The whole thermal insulation system, the interior and exterior doors, tiles, parquet flooring and waterproofing come from Germany and Italy. It's not possible to build at lower cost, no matter which sites we use for our projects.

**Did the architects at OMA choose the façade colours on their own? Or were your wishes as client also taken into account?**

Our only request was to have natural, earthy and mineral-based colours.

**What made you decide to use KEIM paints?**

We hadn't had any experience with this manufacturer's products. The OMA architects recommended them due to their durability. The sunny climate in Tirana meant we needed paints with high resistance to UV radiation. We didn't question the slightly higher investment involved, because KEIM is a very good product. It gives variety and life to Mangalem 21.



## MANGALEM 21 TIRANA, ALBANIA

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<b>Client</b>	Kontakt Shpk <a href="http://www.mangalem21.kontakt.al">www.mangalem21.kontakt.al</a>
<b>Architecture</b>	OMA. Office for Metropolitan Architecture <a href="http://www.oma.com">www.oma.com</a>
<b>Façade surface area</b>	75.000 m <sup>2</sup> 55.000 m <sup>2</sup> in colour   20.000 m <sup>2</sup> in white
<b>KEIM products</b>	KEIM <i>Stucasol</i> textured render 1.5 mm, imbued in 24 different colour shades and natural white KEIM <i>Brillantputz</i> render 2 mm, imbued in shade 9049 KEIM <i>Design-Lasur</i> glazing in gold

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