

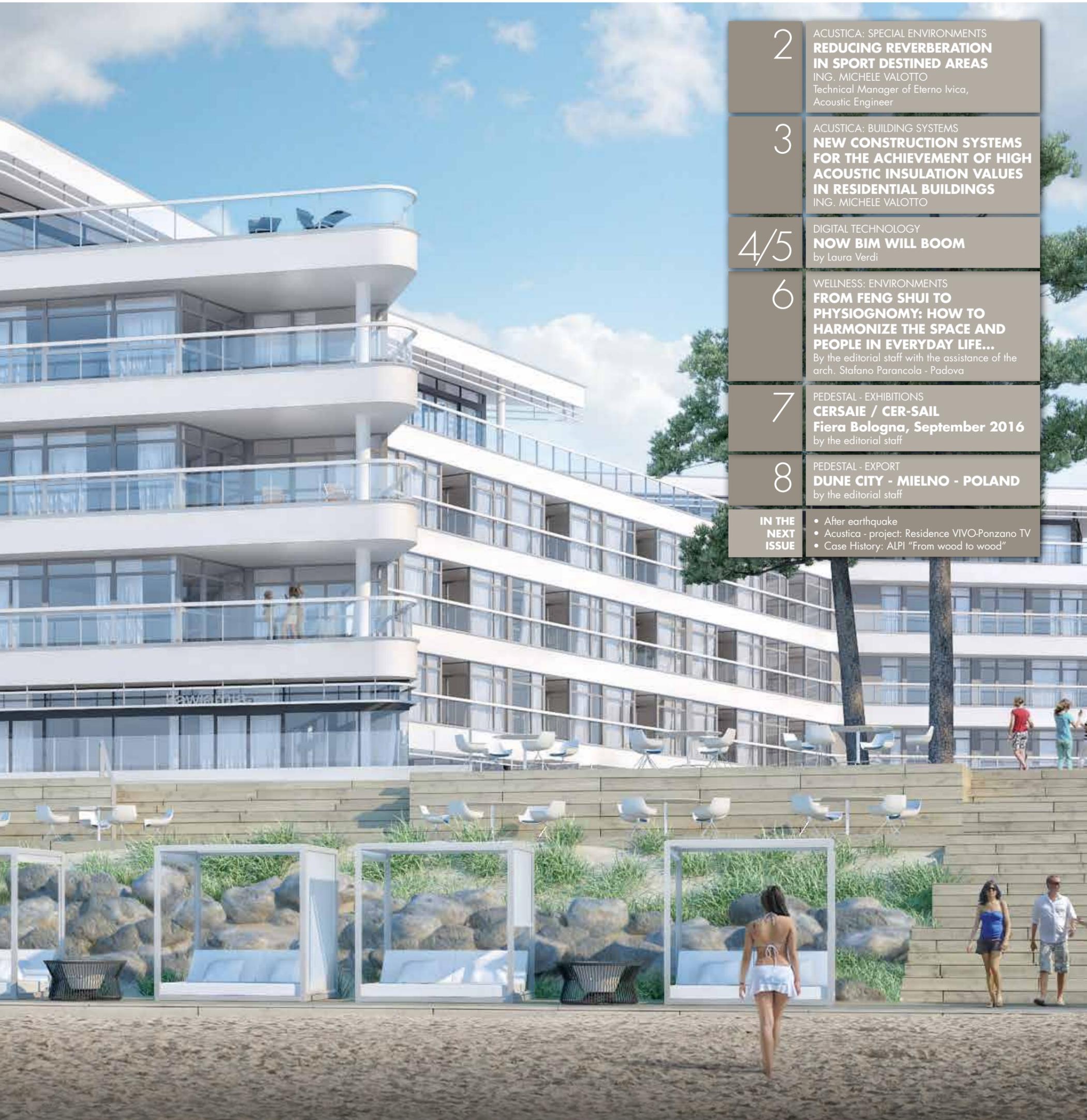
INNOVATION FOR ARCHITECTURE

by ETERNO IVICA socio ANIT



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Dear Readers,  
We are surrounded by a world and a changing society, our standard of living are moving like technological developments, we acquire consumer awareness that makes us freer and more demanding on what we buy. Consumer goods turnover takes a growing pace, especially those related to our person: clothes, cars, tech accessories, beauty creams, furniture, food, and even pets often are a trend.

But the most important and strategic thing where we spend much of our lives, that we should defend from heat and cold, stress and external noises and cataclysms, well this important nest is our HOME.

Too often buyers, do not pretend any explanation, tested and certified construction, which will cause problems then with waterproofing, thermal and acoustic insulation, humidity, structural safety;

without considering that our homes are already "old" before being finished, due to the never ending evolving standards and market trends.

It would be desirable a changing House, changing with fashion, with technology, with our taste that is always changing: we could replace the thermal and acoustic insulation, interior fittings, electrical installations, water, but without touching the skeleton of the House: sound impossible? What would you say if I told you this already exist? Surely someone of you is already aware of it, the technologies are already on the market, but all it comes up against the law of supply-demand which governs inexorably the prices and the market. As evolved human beings we must demand an updateable House, that satisfies those who live in it and creates a market that runs all the time.

Riccardo Griggio

# Reducing reverberation in sport destined areas

## The case of the palasport of Vigodarzere (PD)



**ING. MICHELE VALOTTO**  
Technical Manager of Eterno Ivica,  
Acoustic Engineer

*The redevelopment plan consisted in the application of approximately 300 sound absorbing panels PHONOLOOK...*



The buildings of many Italian towns consists, among others, by many sports arenas, often also used as venues for events and non-sporting meetings.

This is the case of the Palacertosa of Vigodarzere (PD), built at the beginning of 2000 and recently undergone redevelopment. The building is characterized by a free inner surface in 38.00 m x 24.00 m size plant, to a maximum height of approximately 10.00 m and a volume of about 8,000 m<sup>3</sup>. The seats are 300.

As historically happened to numerous sporting facilities, also in this case in the design phase and/or execution not efforts were made to reduce internal reverberation, making poor the quality of enjoyment of the environment, and almost reducing to zero speech intelligibility, even at a distance of few meters.

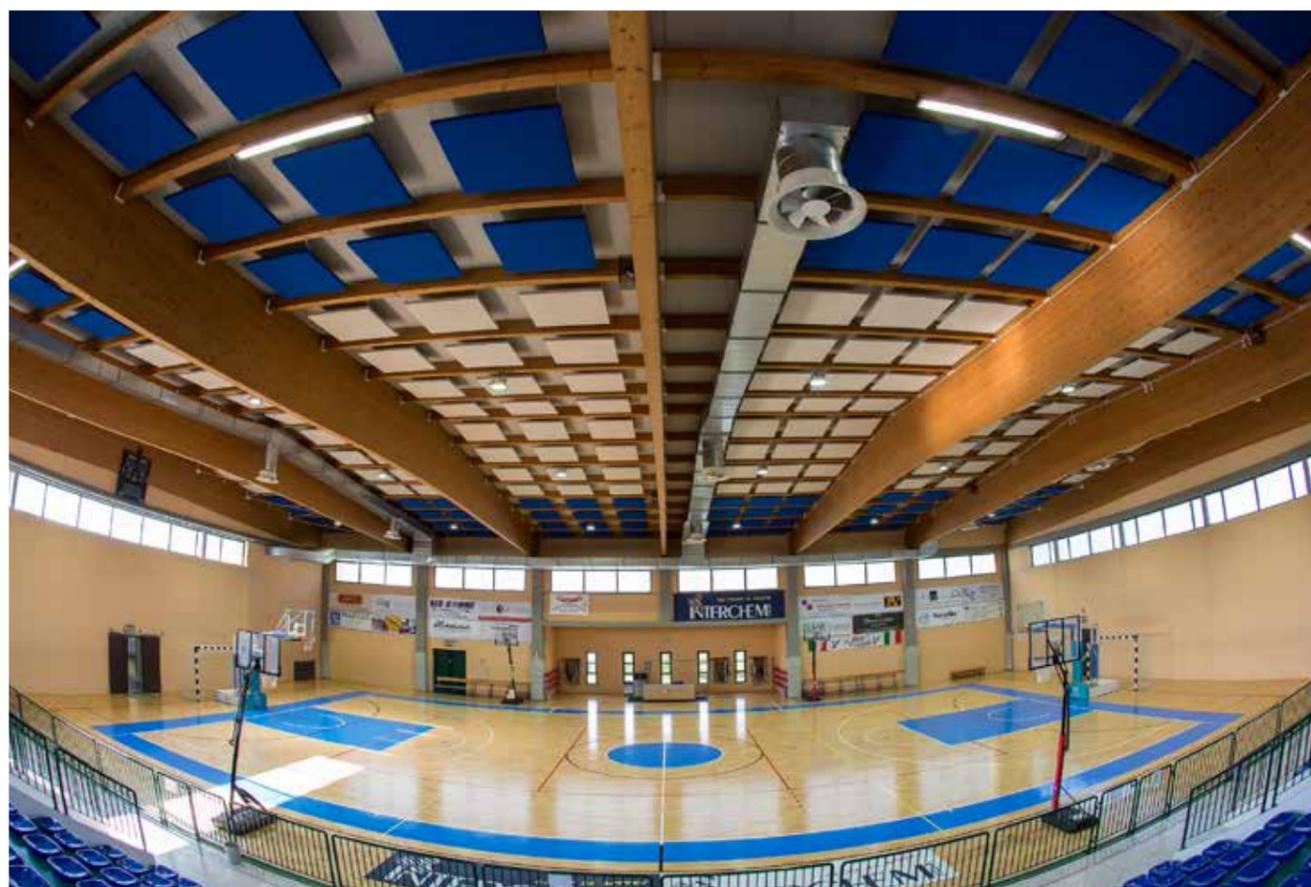
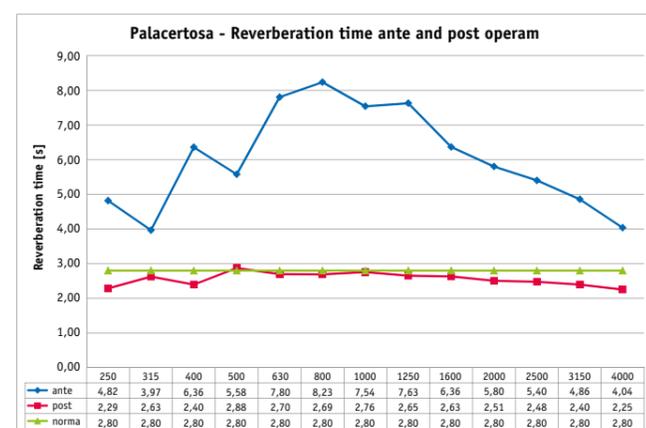
In 2016, the City Government has succeeded in raising the necessary funds to the retraining acoustics of Palacertosa, bankrolling first an analysis of the State of fact and, subsequently, entrusting the work to supply and laying of sound absorbing panels. The phonometric measurement conducted ante operam had provided extremely poor reverberation times values, ranging between 500 Hz and 1000 Hz of 8 seconds. These values, if compared with the latest legislative reference (UNI 11367:2010), appeared to be almost 3 times greater than what predicted by the standard technique for sport environments.

The redevelopment consisted in the application of about 300 PHONOLOOK 120 cm x 120 cm sized panels (5 cm thick), suspended through a system of chains and steel fixing. This suspension system, with provision of all items at the bottom and lifting panels in subsequent quota, allowed a quick and practical application, ensuring easy future disassembly in case of need of cleaning or replacing. The personalization of the panels allowed the supply of tissues complying with the colors of the company Basketball Vigodarzere.

As per request of the municipal administration, to work completed, we proceeded to check phonometric values post operam, conducted in the same manner and with the same instrumentation used in the check ante operam. In particular, the measurement of impulse response was determined with the use of the signal sine-sweep, a variable frequency sine signal. With this technique, it was possible to measure not only the development of reverberation time according to the frequency, but also the most sophisticated parameters like the STI (sound transmission index) and C50 (clarity).

The remarkable results obtained with the help of acoustic absorption panels are shown in the graph, where are reported the situation ante operam and post operam.

As you can see, the phonometric measurements conducted ante operam, the calculation by Competent technical experts in acoustics, together with the use of PHONOLOOK panels, have made it possible to obtain values post operam perfectly aligned with the provisions of the technical standard UNI 11367.



# New construction systems for the achievement of high acoustic insulation values in residential buildings

ING. MICHELE VALOTTO

The mixed system applied to existing buildings represents an optimal solution from the point of view of construction, since it can be accomplished with great speed and with great construction site cleaning, drywall applications being almost "surgical" and free of those heavy, noisy and disturbing machining typical of standard masonry interventions.

The vast experience gained over the past decade, on the results achieved in compliance with the limits imposed by the well known DPCM 5.12.1997 «determination of passive acoustic requirements of buildings» is proving that it is not sufficient anymore to build with the sole intent to comply with the requirements of the regulations. The specified standard, in fact, does not warrant any acoustic insulation comfort, as increasingly being witnessed in all that cases in which the simple respect of DPCM 5.12.1997 produces fierce complaints from the buyers, sometimes with legal actions opened for over a decade. The inadequacy of soundproofing provided by Italian law would find reason in comparison of the limits imposed by the various European standards (table 1 shows the minimum acoustic insulation to the apparent sound reduction index  $R'_w$  expressed in dB).

Table 1 : Minimum  $R'_w$  (dB) sound insulation values

State	Line buildings	Mass buildings
Italy	50	50
Germany	53	57
Holland	52	55
Norway	52	55
Sweden	52	55
Finland	52	55
Denmark	52	55
Great Britain	51-54	51-54
France	54-57	54-57
Austria	54-57	59-62
Iceland	52	55

As is known, it's now technically and easily achievable the compliance with the limits for class I of the technical standard UNI 11367 «acoustic classification of residential units» (July 2010). This class provides the acoustic insulation commonly considered to be of "good comfort", as is daily confirmed by buyers of properties for which the phonometric in opera provide expected results by UNI 11367. Table 2 summarizes the limits for the class.

Table 2 : Class I limits

Facade sound insulation $D_{2m,nT,w}$ [dB]	$R'_w$ sound insulation value between different units [dB]	$L'_{nw}$ sound pressure level from stepping between different units [dB]	Correct sound level from continue machinery $L_{ic}$ [dB(A)]	Correct sound level from discontinue machinery $L_{id}$ [dB(A)]
$\geq 43$	$\geq 56$	$\leq 53$	$\leq 25$	$\leq 30$

As regards the sound pressure level of tramping  $L'_{nw}$ , we can achieve and improve widely the value  $L'_{nw} = 53$  dB already with the usual techniques - with clay-cement slabs or predalle, supposing an employment of appropriate products for acoustic insulation, properly certified in laboratory.

The Designer should include in the design phase that products with laboratory certificates: these certificates must be related not only to the well known and required parameter dynamic stiffness, but also to the parameters of compressibility and creep. It is largely demonstrated by phonometric in opera tests that the best acoustic insulation results are characterized by an excellent compromise between these three parameters. The correct numerical values of these parameters are widely available in the technical literature. Figure 1 shows the detail of an attic for which the test on site has provided an extraordinary achievement,  $L'_{nw} = 44$  dB, largely better than the Class1  $L'_{nw} = 53$  dB value.

The result was achieved in a building constructed in Sovizzo (VI) with facade walls and partition walls between units, brick, without any false ceiling or plasterboard. The resilient underlay used (10 mm thick rubber latex) presents an excellent ratio of dynamic stiffness, compressibility and creep, ensuring the durability of the floor and the maintenance over time of the performance of the resilient underlay.

On the contrary, the apparent sound reduction index  $R'_w = 56$  dB, it's almost a performance near to upper limits given by the usual Italian clay building techniques. Phonometric tests conducted on several layered brick walls of substantial thickness (an example is shown in Figure 2), yielded certainly important results, between  $R'_w = 57$  dB and  $R'_w = 58$  dB.

The respect of the values  $R'_w = 56$  dB and the  $L'_{nw} = 53$  dB should be requested by the customer at the beginning of the building process, so in the design phase it is necessary to provide for an appropriate safety margin on the expected results, in order to avoid obvious challenges in a second period at terminated building.

Following these considerations and recalling that the tolerances on the results of phonometric measurements are at least  $\pm 2$  dB, within ordinary buildings in order to achieve top performances it is clear that there are large margins of safety based on the achievement of  $L'_{nw}$  values, but poor safety margins regarding the apparent sound reduction index  $R'_w$ .

There is a constructive system of niche, but still widely tested in opera for a decade now, which is several times higher than expected results from class 1 of UNI 11367, guaranteeing huge safety margins in design phase even compared to very high acoustic insulation values.

This is a mixed construction system that uses cement floors and brick walls, associated with high density gypsum plasterboards coupled to massive soundproof membrane. The realization of false ceiling or walls in the partitions between unity and façade, as well as the use of plasterboard in internal partition, allows to clear the flanking transmission, both in terms of impact noise,

both in terms of the apparent sound reduction index. Some schematic representations are shown in Figure 3.

Typical values measured repeatedly in opera for this type of construction are shown in table 3. As you can see, the results are largely better than what previewed from class I.

Notwithstanding the economic considerations to be taken and changing every time with the particular construction site design object, the mixed type of construction is always applicable, if previewed in the planning stages, ensure a proper minimum floor-to-floor height.

The mixed type of construction is effective and application is wide in the case of renovation of existing buildings, both in residential, productive activities or public places. In the first case, when we must improve the sound insulation of existing apartments, especially against the noise from neighbors. In the second case, when you want to reduce noise emissions to the surrounding environments by noisy activities. The latter is the increasingly widespread case of interventions carried out in disturbing public places (bars, clubs, restaurants, pubs) adjacent to residential units, sanctioned by ARPA for exceeding the limits.

Table 3. Typical on site values

$R'_w$ sound insulation value between different units $R'_w$ [dB]	$L'_{nw}$ sound pressure level from stepping between different units [dB]	Correct sound level from continue machinery $L_{ic}$ [dB(A)]
65	42	22

Where the limits are exceeded, in addition to the payment of the penalty imposed by the municipality, holders of assets are required to reduce emissions in the short term towards neighbouring units, unless they must suspend their activity business. Where the overrun is attributable to the aerial noise produced by the voice of the customers or from the amplification of music, the only possible intervention consists precisely in making false walls or ceiling using sound insulation plasterboard, appropriately designed.

The mixed system applied to existing buildings represents an optimal solution from the point of view of construction, since it can be accomplished with great speed and with great construction site cleaning, drywall applications being almost "surgical" and free of those heavy, noisy and disturbing machining typical of standard masonry interventions.

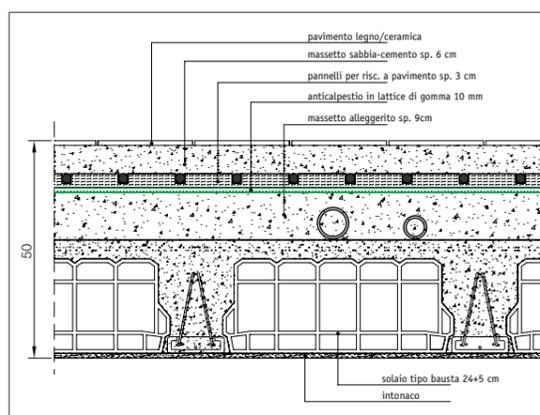


Figure 1. Building detail of an attic

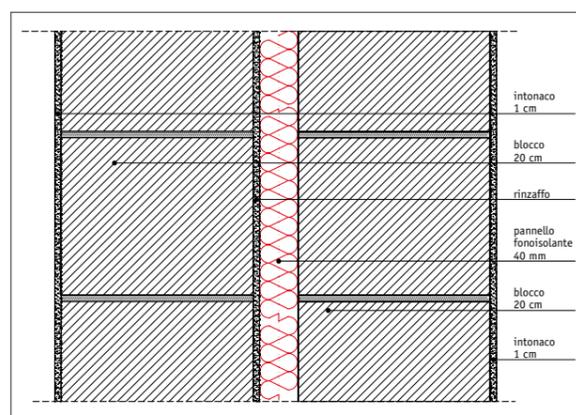


Figure 2. Several layered brick wall of substantial thickness

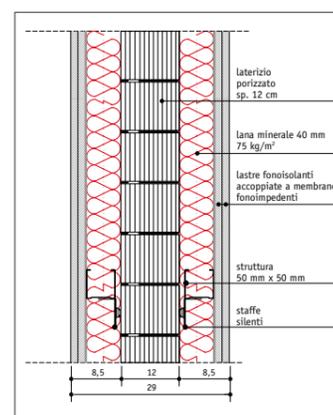
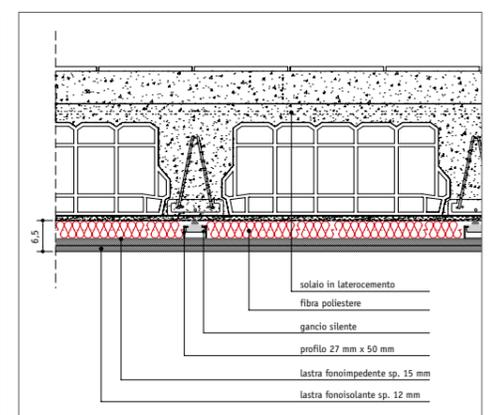


Figure 3. False walls or ceiling with sound insulation plasterboard



# Now Bim WILL BOOM

*An engineer explains why the adoption of technology that integrates the construction process with digital design is inevitable. The reason? It offers many advantages. Be careful: the rigidity of the system requires a precision work.*

BY LAURA VERDI

«Do not ask yourself if you will use Bim, ask yourself when». I like to open the article with a sentence stolen from a Convention of architects I attended a few months ago, during which various hot topics for the sector were treated, and the Bim was one of the top rated. Becomes therefore essential to talk of the argument in first issue: we chose to let us explain Bim by Roberto Cereda, a member of one of the most successful integrated design companies in Italy, with a unique success story to tell.

#### Necessity or virtues: When did you decide to adopt Bim technology?

It's a couple of years we have chosen this road and, like everything we do, we always try to find the excellences on the market. At an early stage we started a training program with specialist companies; nowadays the formation continues handled internally by our BIM manager. We also launched a collaboration with Politecnico di Milano for a specific search on implementing BIM process, and we found capable and valuable people that gained significant experience in this area. We have gone down this road without being solicited by a particular client or attending some external indication. We simply did it. And we tested it on the field. We chose a couple of projects that were flexible and adapt to be developed with this methodology and there we started.

#### What are the two sample projects?

The first one is a redevelopment of a building, in the historic centre of Milan, for office use. The design began at the end of 2014 and the building is under construction. The customer, Deka Immobilien Investment GMBH, in addition to compliance with regulations, architectural barriers, seismic, fire prevention, rehabilitation, had also requested a valuation of the property which entailed the demolition and rebuilding of parts of the building, changing the volume and structural parts and engineering requirements. It's a complex project, which has drawn great benefits of BIM, with a design workflow based on real time coordination between the various disciplines involved in the design.

The second project is the renovation and expansion of a production building and a body existing offices on behalf of SEW-Eurodrive in Solaro, near Milan. The new image of the façade, bringing together the entire complex of buildings, has been designed with a process of form finding using an algorithm of Grasshopper that generated a shading system characterized by a succession of shades. With the use of Dynamo, the algorithm has been translated in the project template. In execution phase, parallel to the phase of parametrics, an array file has been created, named General Warehouse, where any information associated to project items such as walls, floors and doors were catalogued in folders. This has resulted in a database of materials and content useful for future projects.

#### What's the difference compared to "traditional" way of designing?

First we must specify that BIM is not a software but a design methodology that uses software interoperable with other design tools, construction and operation.

Essentially with BIM the project becomes a composition of elements designed and defined earlier. As an example, if traditional design the wall is represented by two parallel lines, with the BIM the wall becomes a parametric object that can be associated with all the information you need for the project; the same applies to windows, doors, lifts, etc. Before this we must obviously build a library of BIM objects, implemented from time to time, from which you can choose various coded elements, to be more efficient in planning and calculation time. In our case, making an integrated planning, we developed a dual library, both architectural and engineering.

This methodology results in a greater awareness of the project from the earliest stages. Therefore the project must be first thought, and then represented.

#### The BIM has within itself an intrinsic stiffness which helps the planning and construction process.

In the traditional design, coordination between disciplines is not always easy to manage. While with BIM architectural design, structural engineering, is synchronized, and this allows timely and real-time coordination of various disciplines. If there were mistakes, it becomes immediately evident. If I was wrong to right-size the annulus and countertop and this is interfering with the plants, through a monitoring procedure typical of BIM called "clash detection", I get the immediate reporting of incongruity. BIM exposes the error already in the planning stage, in favor of very accurate executive projects. Then, thanks of this rigidity, it facilitates the design process.

On the other hand in case of modifications it brings many advantages. I think about what happened in the redevelopment of the building in the historic centre of Milan, for whom the Landscape Committee requested the change of the proposed architectural solution with a different one, considered more in line with the context. In particular we were required to replace the glass with other iron railings. With the update operation BIM project, it took far less time than what would be necessary with a traditional design. That's the difference between working with lines or work with objects rich in information.

#### With BIM the "preliminary design" still exists?

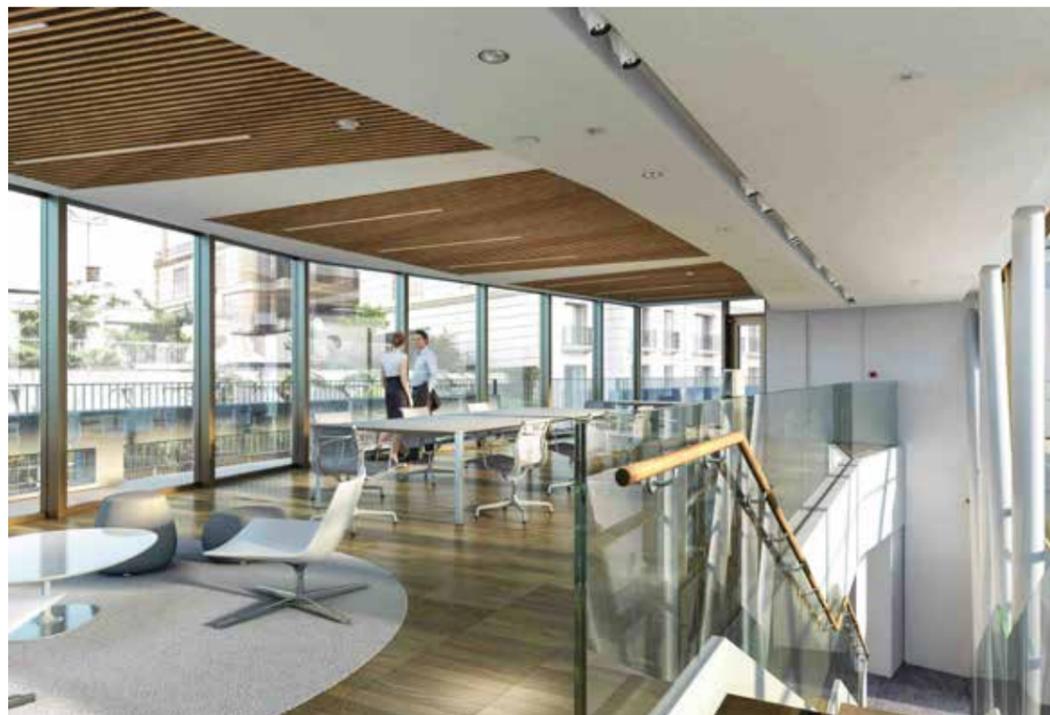
Let's say the draft can be limited as the simple definition of volume. In the next step I can then further detailing the performance specifications of the items. Execution phase can use that library, of which we were saying before, for example, by selecting a wall to which the thermal performance are already associated. Depending on the Level of Development, my wall of thirty centimeters will be enriched with performance information. Interacting with an energy analysis software, for example, I can already assess what may be the most efficient choice, even in terms of shape, orientation and performance of the building.

#### According to your design approach, what were the advantages in adopting BIM?

Our approach to design is to the building/plant that starts from the final performance of the building. The fact that a building is more compact or more elongat-



**ROBERTO CEREDA**  
engineer, one of the seven members of Lombardini22 and head of the Plants and sustainability



Redevelopment of the building to offices use in downtown in Milan, on behalf of Deka Immobilien Investment GMBH: among the first projects with whom Lombardini22 tested Bim.

ed, with more or less stained glass, the choice of exposure, are all elements that make a difference in energy modeling stage and then they relapse in the choice of the elements themselves. This involves a continuous communication between architects and engineers. We believe that we need to be more efficient in order to be more effective on your system and avoid throwing away money, both during construction and during use. And the world BIM binds well to these energy aspects thanks to the interaction between systems and software.

Another fundamental aspect of our approach is that we think that at the design stage should be involved so many specialized figures, primarily users of the building. We are fortunate to have within us who designs buildings but also who is super skilled in follow tenants, which will inhabit those buildings, and knows their needs. Our design follows all the signs coming from tenants, as the flexibility of the systems and the possibility of reconfiguring spaces. Once constructed the building, there will be a delivery to the tenant that should be able to use the building at its maximum, also on design type performed. We like the Anglo-Saxon concept of soft landing, that is a period in which the customer/user is accompanied in the optimal management of its premises and during which the designer remains as a consultant.

BIM has also the potential to help the facility management in future management. In BIM model you can attach the relevant information to the maintenance of the building. Everything becomes more automatic and manageable, both for preventive maintenance or maintenance during emergency. The real question is whether the market is ready for this!

**What are the general benefits and time benefits?**

With BIM, as we said, there is definitely more conscious handling of the project. Once the template is created, I can do any section and produce all the views I want very quickly. On a site level, the possibility of variations are reduced enormously: you eliminate waste, and costs are certain. It is difficult to quantify the economic benefit, surely with equal time spent on design in the traditional way or with BIM, it can be seen that the performance achieved by the latter are greater.

**What are the consequences of BIM on the world of construction?**

BIM returned to the designer that "power" that, in recent years, construction companies had claimed.

The construction drawings with BIM, are so precise that leave no possibility of manoeuvre under construction and all the information and construction details present in the tables are extrapolated from the model already at design time.

**There is no danger with BIM to loose in architectural creativity?**

I would say the opposite. Working in 3D BIM allows immediate visualization of the idea almost to reality, even with the help of 3D printers, which tells you immediately whether you can move around with standard or customized products. Creativity is not removed to architects, indeed! They will increasingly need to know advanced software design and computational design.

**After how long a design company can be operational with this technology?**

As far as we are concerned, at first we managed to implement BIM projects in a time equal to what we had budgeted for their development with a traditional design, despite having used these projects initials as pilot cases. The implementation of this methodology resulted in a training process, accounting for 30% of the total number of hours on the job, along with the remaining 70% design. So I would say that we in four or five months we have been operating on both the architecture and the engineering area.

**Is the initial investment (software, courses, etc.) high?**

The investment is not indifferent. The licenses cost more or less double than traditional software. There is also an investment in hardware, as computers must be more powerful to support information-rich files, heavier than those generated with traditional drawing programs. There are no specific State funding, although in some cases it is possible to return to funding programs for innovation.

**Is it essential the use of BIM abroad. Also in Italy it's the same?**

England races to public works are only in BIM and private works, which normally follow the trend, will follow soon. But even in Italy we have already received requests for quotations only in BIM by customers, accustomed to working abroad where this methodology is more widespread.

**THE SECRETS OF BUILDING INFORMATION MODELING**

Building Information Modeling is the new process of sharing information regarding the project by creating a multi-dimensional model. The model contains the various data of a building related to different disciplines that define it. The role of Bim is to support communication, cooperation, simulation and optimum improvement of a project along the full life cycle of the work built. Bim adopts a circular process-and no more-that overcomes the limitations that the various disciplines meet in their continuous instrumental dialogue, optimizing workflows and project management. Along the building process you can collect, contain and maintain a full prospectus, consistent and unique building, both graphic and alphanumeric.



Sew Eurodrive in Solaro, in the Milan province, with the new façade with a system of shading with shades. Sample projects with which Lombardini22 has approached the Bim. In the implementation phase, was created a file General Warehouse by cataloging of all the information about project items.



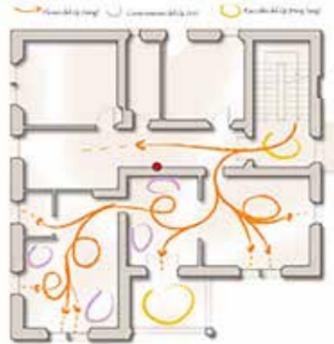
Sew Eurodrive in Solaro building's interior

## From Feng Shui to physiognomy: how to harmonize the space and people in everyday life...

By the editorial staff with the assistance of the arch. Stefano Parancola - Padova



The tree in the House.



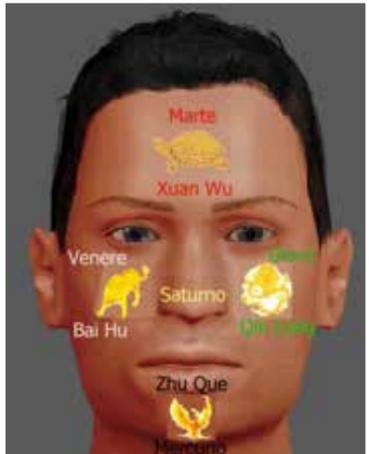
Plant of energy flows.



Project Feng Shui for Polesine Parmense for specialization course in Feng Shui Architecture: Arch. A. Arlanch and S. Parancola.



Plemmirio, in Syracuse: the cliff with a human face



Map physiognomy Mian Xiang

Feng Shui is the ancient art of wind and water that emphasizes the location of sites by assessing the relationship with the surroundings (natural and artificial elements). Feng Shui means literally, take advantage of the wind and the water, understanding the nature, protect natural ecosystems, place correctly buildings and installations, as we modify the territory in order to make it cozy and pleasant for people today and for future generations.

The **Feng Shui** or "therapy", is an **ancient Chinese discipline that studies how to arrange the environments so radiating positive energy around us.**

The environment in which we work, where we live, is critical to our well-being and to our productivity. Think of all the times when we feel "tight" in our office. The design and orientation chosen for our desk, the location of the computer and the telephone, the color of the walls, the lights used can give us an edge in improving our performance and the quality of our days.

**Feng Shui improves quality of life**, if applied correctly, making sure to put in sync all the elements of a room, allowing the inhabitants to express themselves to the

maximum: every living space in fact determines a feeling, comfortable or not. This in turn produces a particular emotional state from which it follows a behavior that may be more or less productive.

**The goal of Feng Shui is the design of buildings that meet the physical, biological and spiritual needs of those who live there.** The structure, services, the colors, the smells affect the way we live, work, interact. Today, many homes have become "closed shells" and unhealthy. The fumes of plastics, floors treated with additives, hermetically sealed Windows and doors, insulation materials, waterproof layers of paints and adhesives, synthetic don't ensure hygiene and health.

**It is a key element in design to recover the General principles of nature as elements of design:** recover a sense of history and the memory of places; design according to the architecture of listening, meant as reading of the places and involving final users and their needs in the design. **Feng Shui, if applied correctly, improves quality of life.**

### Mian Xiang

The ancient Chinese art of Mian Xiang or **physiognomy**, analyzes the

face as a kind of mirror that reflects the emotional aspect within each individual.

In the High Renaissance was **Leonardo Da Vinci** (1452-1519) that was interested of physiognomy. He designed and studied under many points of view the human being in its entirety, as can be seen from the many designs of human faces and bodies and also by many anatomical drawings carried out on scrupulously dissected cadavers: this reveals the deep desire of Leonardo to look into the structures of the physical body looking for the analogy with the structure of the motion of the human soul. Even the ancients believed that the face was the seat of the passions. Leonardo in his **"treatise on painting"** supports the direct correlation between "motions of the soul" and facial expressions. *"If the figures do not express the mind are twice dead. [...] It is true that the signs of faces show in part the nature of men, their vices and complexions"* (Leonardo, treatise on painting).

Physiognomy provides practical elements to read "emotional scars" of the face and knowing how to better interact with people.

An ancient Chinese proverb says: **"The face comes from the heart"**. In the face is reflected what a person feels, proof, all emotions: fear, insecurity, fear, joy, love, happiness ...

This means that changing our emotions, our face changes accordingly.

The **Mian Xiang** face reading, is the interpretation of the character and destiny of a person, through the analysis of its physical appearance.

We can argue that a person with smooth skin, her face proportioned and without wrinkles or scars, is definitely a person who has had few difficulties in life. While a person with many wrinkles or scars has faced many difficulties in its path.

Scientific research has shown that our faces are like computers programmed to show certain expressions, revealing if we are joyful, sad, surprised, worried or disgusted. Identical ways of expressing pleasure, fear, surprise, anger and interest can be found in all human races.

The **Mian Xiang** helps us to negotiate better, because we can upfront to understand the potential of our interlocutor in order to conquer at best.

**Mian Xiang and Feng Shui:** knowledge makes us free, free to choose the best for us and for our well-being. And we can do it every day.

#### How to work with Feng Shui architecture

The advice is aimed at anyone interested in building in an environmentally responsible manner, through a careful use of the guidelines, the correct location of the furnishings, the therapeutic use of colours, the choice of materials and forms more suited to harmonize the living space.

#### Areas of practice:

- Commercial premises: shops, shopping malls, casinos, discos, hotels, bed and breakfast, restaurants, SPA and wellness areas;
- Financial and insurance buildings: banks and insurance companies;
- Residential buildings: houses, townhouses, duplexes and apartments;

- Advice on the design of parks and gardens;
- Advice about EcoDesign: study of new collections;
- Consulting services in the marine sector;
- Advice on real estate (buying and selling of houses, construction industry analysis and rebalancing "not sold");
- Study of corporate logos.



## NEWS

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## CERSAIE BOLOGNA ■ ITALY

**Eterno Ivica awaits and greets all guests in its own home.**

The idea was to recreate a space familiar to all, a House, the House of Eterno Ivica, split into different environments within which every moment is an opportunity to grow and experience it differently.

The increase of the space and the creation of the environment has been designed with the intention from an evolving company to provide adequate hospitality to all customers, new or old ones, with increasing demands.

Eterno Ivica grows: develops new products, new technical solutions to meet the ever changing demands of the market are found; so a mix of growing expectations and, at the same time, the need for adequate space in a dimension of high international importance such as the one that Eterno Ivica is acquiring.

More space and more comfortable, useful to study, organize, design, program and compare, because customer needs are for us the stimulus that drives us to improve. Constantly changing and innovative solutions ensure the best possible solution for the customer.

It is this partnership that has allowed us to grow and to achieve important goals, so we want to share with you a very important event for the company, like the Cersaie.

The Stand has an important coverage alternated by open spaces and empty style sunblinds, the entrance is a red frame; to start we find outside area which consists of a platform in front of a video wall, the more social and exposed part, which will host a "School of laying": four appointments per day (divided between morning and afternoon) to tell and live through direct experience the endless possibilities of laying products of Eterno Ivica.

This is followed by a reception and registration corner with adjacent a first collection space, followed by a path marked by various totems, exhibitors of the main and the latest products developed by the company; we reach then a living/relax area, location of the school's acrobatic performances of "Bartending" free style barman in Bologna, and finally a more intimate room dedicated to meetings.

As a house designed specifically for the customer, Eterno Ivica has sought to create a space that meets the different needs of its guests: ample space, clarity of the material, space and qualified personnel for technical knowledge, but also moments of relax together.

So, this year, Eterno Ivica bears his important contribution at Cersaie.

For the third year in a row, we will be the essential "support" for a major project: we refer to the temporary installation conceived and organised for Cersaie architects Angelo Dall'Aglio and Davide Vercelli, the Cer-Sail.

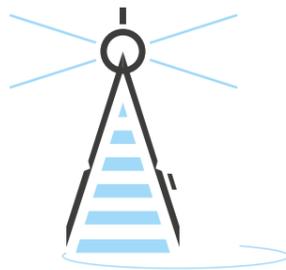
CER-Sail is the third b2b exhibition by Cersaie and this year was inspired by "Greek and Latin Classics, ports, commercial and cultural exchange places, places of passage but also of aggregation, where the sea is the surround to socialization and daily life spending."

The port is seen, in this view, not only as a transit zone, but also as a place that can be used every day of the year, around which a residential and commercial alternative and interactive system can be build.

The opportunity is to make real a place where companies are learning to do system, cooperating and collaborating each other, with their own goal, but with a common benefit, the social one, contributing to the general welfare of the client.

Eterno Ivica for the occasion helped to create the whole under-structure of the raised floor installation of Cer-Sail providing over 1,000 Pedestals to cover more than 6,300 sqm.

It is thanks to this product that Eterno Ivica has demonstrated, even at this juncture, professionalism, product quality and maximum efficiency in the industry.



## CER-SAIL ITALIAN STYLE CONCEPT



**ANTI-VENTO WINDPROOF**

**A PROVA DI BUFERA!**

**WIND PROOF**

Continued climate change accustoms us to scenes of heavy rains and major winds, which in some cases may create problems lifting objects not anchored to our terraces and exterior.

These events are not rare, they require us to think more about versatile products, which take into account any risks caused by bad weather: products that are "Blizzard proof". Eterno Ivica is now able to present a new line of supports created to counter the force of the wind. They just call it "windproof" because they safely, effectively and economically solve the problem of lifting plates.

The system is designed to establish a solid bond between the plates, supports and the laying surface: the steel screws cling inside the Eterno Ivica support passing through the scape of the plates, these are linked to the support through a stylish and robust ring steel, the base of support is anchored in an innovative double-sided adhesive butyl sheath hiding a compound designed specifically to adhere to a variety of waterproofing membranes, resulting in a system with a wind resistance up to now unthinkable.

The system is compelling not only for the elements between their latches, but also for the reaction that the entire pavement connection imposes against the suction force of the wind, resisting to its traction in a systematic way, by distributing the load of the wind between the plates and the adjacent interconnected supports.

**WINDPROOF IS USEABLE WITH THE SUPPORTS IF NM PEDESTAL LINE.**

## ADJUSTABLE PAVING SUPPORT "ETERNO"

With self-levelling bi-material head PP+rubber

**THE WORLD'S FIRST AND ONLY SUPPORT TO BE EQUIPPED WITH A HEAD FINISHED IN RUBBER THAT'S CAPABLE OF REDUCING NOISE LEVELS TO AS LITTLE AS 25 DB**

The Pedestal system is definitely the high point of contemporary paving. It is based on a series of adjustable modular supports that simply and safely adapt to all kinds of floors. It ensures elegant, homogenous paving each time, without having to subject the building to radical structural work. It eradicates problems of damp, water infiltration and the accommodation of cables or pipes, at the same time allowing for quick, straightforward inspection.

Pedestal, the system that evolves the elevated.

**ADVANTAGES:**

- The self-leveling allows you to automatically compensate for slopes up to 5%
- Reinforced adjusting key for a precise adjustment even for finished floors
- Bi-material PP + rubber head anti-noise and anti-slip
- Pre-cut tabs for easy removal
- Screw-coupling head: the head always in place
- Security system-Block System between the various components
- Base plate with pre-cut cut lines



MIELNO - POLAND - BALTIC SEA

DUNE City

a series of apartments in a popular seaside resort

By the editorial staff

Located on the Baltic coast, halfway between Szczecin and Gdynia-Sopot-Gdańsk in the Pomerania region of Poland, the project "DUNE" is part of a larger Master Plan, designed by Polish SAS-Studio Architektoniczne Sietnicki, winner of the first prize at the prestigious "MIPIM Architectural Review Future Project Award" 2016, in restructuring and Masterplanning category at Cannes.

The project intends to create in Mielno a very popular seaside resort, in the region where the Dune City will grow, located just north of the town of Koszalin and overlooking the sea, as well as on Lake Jamno, in a geographical context similar to the seaside resorts of the Venetian Lagoon: a new city of wellness and relax.

Location chosen strategically, interesting and rich in history. Inaccessible after the war because of its use as a military base, it took advantage of the proximity to the Lake as a runway for seaplanes. With the dissolution of the "iron curtain", military settlements have given way to new potential for civilian development, making possible the acquisition of these areas by various investors for project Dune City approximately 20 years ago.

The main purpose of the Master Plan is to build a new city, "Dune City", the city of well-being and relaxa, with an increasing of housing development already in place. It includes a series of hotels and residential apartments on the sea, a swimming pool, a large Convention Center, shopping malls, Wellness and Spa areas, along with numerous services, equipped

green spaces and parks and playground for children.

All this project has to be carried out over an area of about 40 acres of land between the Baltic Sea coast and lake for a length of about 2.5 Km, whose development and implementation are planned over the next fifteen years.

The work in progress of the plan is currently still limited to the original project, considering that, despite the planning is in progress for the past seven years, local zoning plan approval for the increase in square footage is expected only at the end of this year.

Among the buildings already started, the first hotel arose thanks to the collaboration of various professionals from the worlds of hotels with Alex Kloszewskim, well known manager with extensive experience in the field of the hotel sector in Poland.

The hotel is made by over 200 rooms, including hotel rooms, luxury apartments and suites.

Each cell is designed and organized to be autonomous, independent and fully equipped with every possible service: large living room, kitchen, bathroom, bedroom with large windows that lead onto large terraces, externally clad with natural stone that reflects and harmonizes with the colours of the beach, giving a sense of depth over the sea and reflecting the need of man, looking for better living spaces, accessible and well-being.

The lines of buildings are designed with pronounced horizontal string courses, bow window style with continuous walls,

inspired by unspoiled natural quality of light; the intention is to create continuous relationship between light outdoor and indoor spaces, making lightest a structure so close to sea.

Eterno Ivica has contributed to the project by providing supports model SE3 and SE4, complete with clips for vertical edge, enough to cover the entire perimeter of the terraces, with a total area of more than 1000 square meters. The dimension of the self sustaining tiles with thickness 20 mm is the classic outdoor 60 x 60 cm.

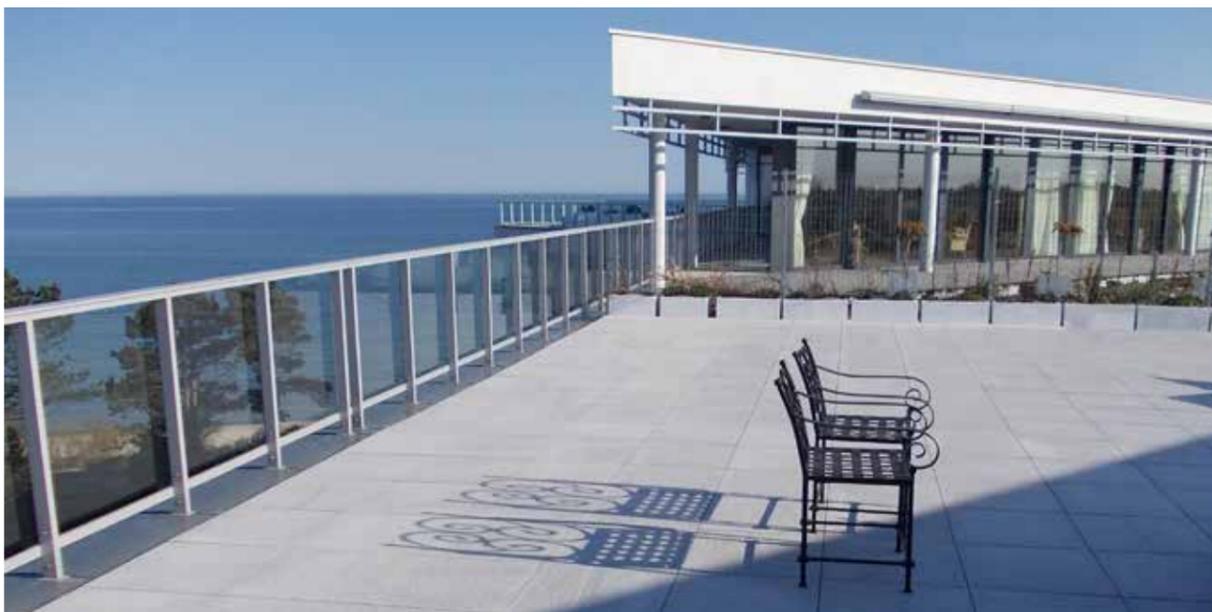
The technicality and the flexibility of the system allowed the self leveling head of the Support to compensate the 3% slope which was naturally created, while providing an optimal and quick installation and ensuring the end result.

The large scale project, provides for the creation of another luxury hotel: the work should start within the year with deadline in 2018.

Installet - company: KKS - Pawel Jacyno - Poznan  
Supplier - Jumbo Pol - Poznan

"I'm creating a new concept of space, where to spend your holidays and leisure, using as measuring unit human dimensions".

- Richard Meier -



the rendering of this page are taken from the site <http://sasstudio.pl> - Photos by Eterno Ivica.