

Issue n° 03
october 2014

THE POOL EXPERIENCE

Sustainability

A product completely eco-friendly

Water Treatment

Spa o Via?

Market-Special

Investment asset

Case History

Hotel Croce Bianca

Relilax Hotel Terme Miramonti

Il Diciannove



THE BIODESIGN REVOLUTION

When speaking about swimming pools, the mind runs immediately to the traditional "boxes" of reinforced concrete. Good for swimming maybe but not particularly aesthetically pleasing, creating difficulty for their integration into the surrounding environment.

At least that was the situation until recently. Today Biodesign Pools offer an alternative that radically changes this concept.

Our company has been in operation for over 40 years as a market leader in the field of monumental fountains, artificial lakes and biological water treatment systems.

A leading productive reality, a guaranteed network of authorized installers in various countries qualified to realize our pools, and an in-house design studio and seasoned research and development department guarantee a high quality result.

Almost ten years ago, the Biodesign innovative, patented technology was born, thanks to which, pools have changed their image. The pool has now become an extremely comfortable living area modelled to accommodate the bathing needs of the client and to adapt to the surrounding landscape. This personalization is created through the inclusion of a series of exclusive features from beaches for shoreline relaxation and sunbathing, a safe place for children to play, to modelled submerged chairs, beds and even an aero-therapeutic massaging zone, without the loss of the swimming areas.



 **BIODESIGN** POOLS[®]

www.biodesignpools.com

THE HEART OF THE BIODESIGN PROJECT

The heart of the entire Biodesign project is the construction process, which provides a coating of natural granulated stone modelled by hand over a structural nets, all laid over an elastic waterproof liner. The result: a solid structural soundness and highly elastic waterproofing far superior than that of traditional swimming pool. In addition they can be realized in a wide range of spectacular colours that only natural stone like marble or quartz can guarantee, capable of replicating the colours of exotic white sand atolls, the world's most beautiful beaches, and even the green of alpine lakes. The advantages related to the Biodesign technology do not end here.

TOTALLY ECO-FRIENDLY

A product that allows you to get easy building authorizations.

There are many characteristics that make Biodesign an innovative product, starting with its limited environmental invasiveness, which allows the pool to fit harmoniously into the context without the use of reinforced concrete. Therefore, the environment is the first beneficiary: the products used, the waterproofing as well as the weight of the supporting structure are a true innovation. This is a system designed to create luxury, well-being and ambiance simultaneously. Quality, naturalness and beauty, a mix of natural components skilfully integrated with the best technology, combining ethics and aesthetics: this is a Biodesign pool, an outstanding example of the "Made in Italy" in the world.

Sustainability, environmentally friendly and bio-compatible. When these words are used, they are generally used as a business slogan and certainly do not refer to humans actual sensitivity towards the environment.

We often deal with this issue in our courses deliberately asking the audience open questions. Responses are always a confirmation of our impressions. The only complaints about environmental matters that engage the audience are in fact those related to the difficulties obtaining permits to build swimming pools or those cases when they are denied.

We should try thinking about whether or not by chance our insensitivity actually has something to do with those administrative restrictions. Years of environmentally aggressive construction practices towards the environment and the beauty of Italy as a whole have perhaps contributed to the creation of terrible procedures. Let's be clear, this is not a justification of the inefficiency of the Public Administration, but rather an invitation for us all to increase our awareness in the first place.

In recent years we have interacted many times with the Public Administration, Building Offices of Planning and Development Departments, and the Superintendency of Fine Arts while assisting our customers and helping them out with permit applications for the construction of pools based on Biodesign technology. On many occasions we have witnessed the resigned look of officers, who at the word "pool" did not even finish looking at the rest of the documentation and closed the matter.

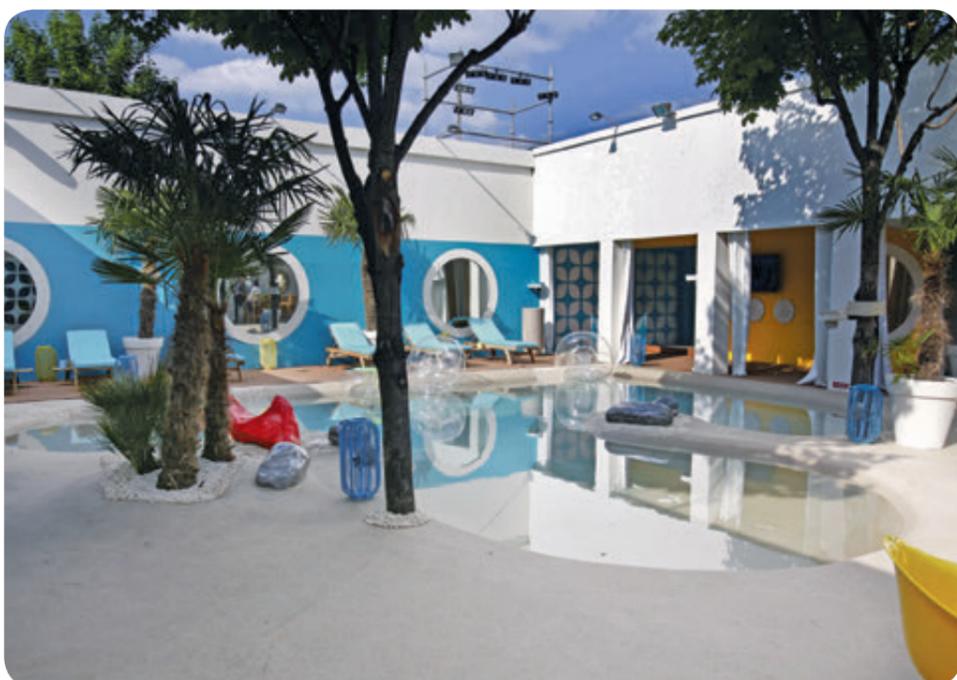
But these initial responses were not enough to discourage us. We enriched our documentation and returned to the same offices with the relevant certifications. We presented technical reports emphasizing the characteristics of the technology we intended to license and specifying the advantages including the absence of reinforced concrete and the use of waterproofing technology even recommended by Green Peace, as well as geological reports and landscape screenings. In that way we demonstrated that for all intents and purposes, Biodesign pools do not degrade the surrounding beauty rather they are just an artificial lake perfectly integrated with the environment.



INVESTMENT ASSET

An investment in your property that lasts over time and follows the natural change of seasons. There is nothing less appealing than a pool or spa during the seasons in which it is not in use. They create environments that are devoid of emotion which in the seasons of disuse invade the garden with unsightly covers.

Biodesign is an outdoor decorative feature throughout the year, both in warm periods which invite bathing and in cold periods when it assumes the characteristics of a natural lake following the seasonal changes in the garden. The use of Biodesign technology also means reducing installation time and eliminating the disadvantages and problems of complex constructions. A technical team is able to completely install a turnkey 20 m² Biodesign in 6 working days, complete with filtration system, edge, air jets, hydromassage jets, and lighting, all without needing to interrupt the continuity of the work. Compared to traditional pools, this is a huge advantage in terms of the environment and the reduction of inconvenience for the customer. Biodesign is first and foremost an investment that increases the value of the property forever.



ENDEMOL CHOOSES BIODESIGN

The Secret Story telecast, the "daughter" of the famous reality show Big Brother, the rights to which are owned by the Endemol group, goes on the air with great success (second only to the USA) on the main French TV station in the early evening for about three months. The Endemol architects who design the most famous house in the world are always looking to create luxurious surroundings that enable high livability for the participants "imprisoned" for an extended period in the same house. This is why the Biodesign pool was chosen. Endemol's design was subject to architectural and psychological studies which envisioned the pool located in the centre of the house. This clearly demonstrates how Biodesign pools become part of the home environment which ensures grate usability for the batters and an integrated aesthetic for any size and project.





A DECORATIVE FEATURE

Biodesign is an outdoor decorative feature easily integrated into any landscape throughout the year, both in warm periods which invite bathing and in cold periods when it assumes the characteristics of a natural lake following the seasonal changes in the garden. In addition, its unique shape and the stone interior lengthen the bathing season, offering warmer water than traditional pools or whirlpools. Biodesign can become a lake for entire seasons while maintaining its quality of a decorative feature and maintaining its value until turned back into a pool for bathing. It is unthinkable to do the same thing with a traditional pool since frequent maintenance is required even during periods when not in use.



THE ONLY POOL SHAPED FOR MAXIMUM RELAXATION

Biodesign technology allows us to study every detail of the pool, including the beach areas, seating and chaise longue, and areas with intermediate depth together with the customer. Shades of colour, the monoliths inside the pool, and all the details that make the pool unique are taken into consideration thus increasing the value and the exclusivity of the product. Thus the positive testimonials from customers who have experienced the difference between an "old style" pool and one built with Biodesign technology are not surprising.

A pool is a good investment, it increases the value of the home, and should be enjoyed as an integral part of the home. To explain this concept of the liveability of a pool, think about the comparison between traditional "box" pools and an empty, unfurnished, but certainly very spacious room, where very little time is spent: the exact opposite of what we want in the environments of our homes, where we try to furnish them according to our tastes and favouring our needs for living.



THE BIODESIGN CONCEPT

THINK OF FURNISHING A ROOM... NOW YOU CAN DO IT
WITH YOUR POOL... NOT A BAD IDEA, RIGHT?



TRADITIONAL POOL



BIODESIGN POOL

EASY TO INSTALL

The use of the Biodesing technology also means reducing installation times and eliminating the inconveniences of complex constructions. A team of three workers is capable of completing a 60 m² pool, key-in-hand, complete with filtration system, plant room, border, and lighting, in ten working days, all without any need to interrupt the continuity of their work at any time. Compared to traditional pools, this represents a huge benefit for the company that builds them, both in terms of organizing their business as well as in terms of reducing the inconveniences for the client who purchases them.

Biodesign Academy

Biodesign's education department is being visited more and more. Almost every week, we offer Biodesign and swimming pool marketing courses, technical seminars on swimming pool installation and since 2011 have included water treatment courses. On the occasion of these courses, API Italia, the company that has



been granted the right to exploit the Biodesign patents, makes available a dedicated Academy area in its buildings equipped with meeting rooms, a canteen for breaks and a test room where customers can try the installation of the various technologies under the guidance of our technicians. Biodesign's educational organization has become an integral part of the company's business. For those selling a new technology it is of utmost importance to educate the technicians to ensure an installation according to detailed quality protocols. To this end, we worked for nearly a year to prepare precise and complete instructions, in both printed and video form, that can be considered the "Bible" of Biodesign technology. We have recently supplemented the courses with information about Biodesign technology and in-depth swimming pool marketing studies, ensuring that nobody is likely to get bored. The water treatment course is absolutely unique. Created with the intent to promote a culture based on respect for bathers and the environment, it informs customers about the advantages of a professional approach to the water treatment market. Advantages that involve producers, operators and above all, clients.

Request the course calendar
comunicazione@biodesignpools.com





Spa O VIA?

The Latin derivative for "Sallus Per Aquam" is SPA and translated into english it becomes "Health Through Water".

"The latin derivative for "Venenum In Aquam" is VIA, also translated into english it would mean "Poison In Water".

Unfortunately, many private swimming pools, in hotels and spas, are nothing more than "VIA" type pools.

This is absolutely not the result of a bad choice by the owner, but rather a set of misunderstandings accumulated over more than thirty years. No doubt can be raised about the clear role of chlorine in the fight against diseases such as cholera and typhoid which occurred thanks to its use in treating drinking water. These results are also obtained in swimming pools and spas. During my travels around the world, I noticed that hotels' indoor pools are not widely used by customers. In fact, many of them being owners of swimming pools, they easily note that the hotel pool gives off an unpleasant odour that their own pool does not.

So they conclude that these are "VIA" pools. I am sure that everyone knows the saying "everything in moderation". Drinking one or two glasses of a good red wine every night can mean "In Vino Est Gaudium" or "In wine there is joy". However, drinking one or two bottles of the same wine means "In vino Est Venenum" or "In wine there is poison". What is the relationship between red wine and chlorine? They are identical if consumed in excessive quantities. An expanse of water is a living, dynamic, and energetic element of nature and deserves the same respect that we show to our body. I would not advise drinking a glass of liquid sodium hypochlorite (bleach) and hydrochloric acid like you would drink a cocktail, to provide for the maintenance of the digestive functions of your stomach or your bloodstream. Yet it is exactly what we do with our pools. Chlorine or other chemicals are used in a way that could be called the "seesaw effect" with disastrous consequences. Our pools and spas are in a state of permanent "debauchery", drunk one minute and sober the next. Who would want to stay in this situation if there is the chance to get out of it? Now let's get back to the "chlo-

rine smell". If you take a bucket and put one teaspoon of liquid sodium hypochlorite or bleach in 200 teaspoons of distilled water you can't smell any chlorine (similar concentrations to a pool or spa).

So what am I smelling in my water pool at my establishment? Here comes the double edged sword. There can be no doubt that chlorine is the only effective sanitiser that maintains an effective residual against bacteria, nature tells us so in animals and plants. However, in combating bacteria some other nasty reactions are happening, where in the chlorine is combining with sweat and urine to form chloramines and organic matter such as; dead skin cells, vegetative matter, dirt, sun-

screens and body lotions combine with chlorine to form trihalo- methanes (chloroform).

I don't intend to be an alarmist, but ask that you do two simple Google searches on "chloramines health risks" and "trihalomethanes health risks". You will be blown away by what you find. One particular study in Belgium likened 2 hours in an indoor pool breathing fumes from disinfection by products equivalent to smoking a packet of cigarettes. The chemical formula for a trihalomethane (THM) puts it in the hydro-carbon category which is a primary constituent of cigarette smoke. The Biodesign philosophy is geared to ensure the best bathing experience for bathers and at the

same time absolute respect for the environment. For this reason, we have identified specific products and procedures to allow our customers to have the best water quality and for service personnel to qualify their actions.

It is widely believed that with just chlorine and acid to reduce the pH all problems can be solved, and often the treatments carried out in pools are reduced to the addition of these two products. With special manuals, training courses, and maintenance guides Biodesign is able to reduce the use of chemicals and enable customers to identify the causes of problems and indicate their specific resolution.

The identification of the pool's specific problems with the consequent reduction in use of chemicals and the ability to maintain water balance so that it is not aggressive are among the main factors that enable better treatment and a longer lifespan of the pool's surface.

Specific equipment and water treatment products certified and produced in Italy enable us to offer quality treatments with maximum consideration for the health of bathers and the environment.



H
SALT
MINERAL SCIENCE THERAPY

Mg+K
MINERAL SCIENCE THERAPY

THERMALIZATON

THERMALIZATION WITH MAGNESIUM AND POTASSIUM OR WITH HIMALAYAS SALTS

The mineralization of water Termapond allows reconstructing the characteristics of the best thermal waters of alkaline earthy, allowing to benefit directly from the with the presence of mineral salts Potassium K.

The mineralization pool of the advantages associated of Health Magnesium MG and process occurs through placing of concentrated solutions that reproduces what happen in the saltworks by evaporation through the sun's rays and roll by the time. These processes, thanks to a method of Biostabilization, allow to produce in a short time what happens in nature in hundreds of years. Termasalts Magnesium and Potassium are essential to human health, the assimilation by epidermal takes place through a process of osmosis that is activated when we are immersed in a saline solution. Solutions at concentrations of 30 cc /L Termasalt correspond to the solution of Delbet, known for its rejuvenating and eudermics as properties.

Magnesium regulates almost 350 biochemical reactions in the body. Potassium is an important element even essential for our life due to its function of protein synthesis in the conversion of sugar into glycogen. It activates many enzymes and stimulates the secretion of insulin.



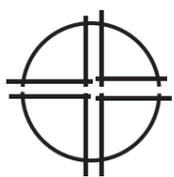
FOCUS PROJECT



EXCLUSIVITY IN TRENITINO

The Croce Bianca Leisure & Spa is a traditional 4-star hotel in Trentino Alto Adige, in the popular resort area of Canazei, in the heart of the Dolomites which were elected as a "World Heritage" site.

It is a true natural paradise where Sorapera, a high-profile architect in Trentino, and the managing director of the hotel, Erik Detone, have chosen to create a pool which is perfectly integrated into the landscape, and highly technological at the same time. This was the impetus for the installation of a Biodesign pool that starts inside the spa among monoliths, the children's areas, and submerged seats. It is separated from the outside by a large glass wall that allows bathers to enjoy air jet therapy with a wonderful view of the Dolomites. To prevent heat loss an automatic glass door was installed inside the pool which is activated by proximity sensors. The outdoor section is composed of two pools, one higher and smaller that creates a waterfall effect into the larger one below it which can be timed through independent filtration systems. The lower pool is heated and a cover built into the floor enables it to be closed overnight. The pool also offers water jets for neck massages, beaches, and relaxation areas. The structure's exterior cladding blends in beautifully with the pool. Thanks to management and architects able to see outside the box, once again, Biodesign technology was a helpful tool in creating a unique structure in perfect harmony with the landscape and the environment in general. These results were attained thanks to the quality of construction and organization of Inacqua Srl, the Biodesign dealership in Bergamo.



CROCE BIANCA
LEISURE & SPA HOTEL



FOCUS PROJECT



HOTEL TERME MIRAMONTI
MONTEGROTTO TERME



“Over 120 years
at the service of your wellness”



Relilax Hotel Terme Miramonti



Relilax is the foremost beauty spa in Italy due to its history and size. Since 1982, it has been located in one of the most renowned spa hotels, the Hotel Terme Miramonti of Montegrotto on the Euganean Hills fifteen kilometres from Padova, Italy, managed by the historic Braggion family of innkeepers that has directed it for four generations. This Hotel has become the best place to experience the thrill of swimming in a Biodesign pool that is open all year round.

A
family
tradition



Relilax Hotel Terme Miramonti
Piazza Roma 19 - 35036 Montegrotto Terme (PD) Italy
Telefono +39 49 8911755 - Fax +39 49 8911678
www.relilax.com



FOCUS PROJECT



Il Diciannove

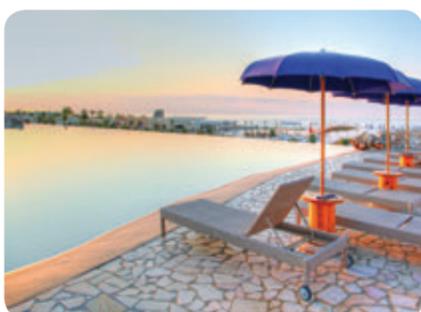
Bathing establishment
Santa Cesarea Terme (LE), Italy

The pool consists of three basins (for a total water surface area of 3,400 m²), two of which have an infinity edge on the seaside to create a sense of continuity with the horizon. Thanks to their placement on different levels; the basins spill over into an open-air, non-bathing channel of 300 m² that acts as a compensation tank and ornamental fountain.

The lower pool has a curved shaped and is crossed by a wooden bridge; at the centre of the widest part of this pool, a geyser of air and water intermittently spurts from a sand dune. Finally, the third basin was specifically designed for children in a somewhat secluded area, so that the other pools are quieter and, at the same time, to allow greater control over the adjacent areas.

The location of this construction is situated on a coastline composed almost entirely of rocks overlooking the sea, interspersed with marvellous beaches reachable only by boat. The intention was to create a section of sea and sand that could be reached easily and accommodates a large number of people.

Thanks to the low environmental impact of Biodesign construction technology, it was possible to construct this project in an extremely charming natural setting; Biodesign's innovative structural system ensures excellent water tightness even in a rocky area with many static problems. Construction times were very fast: less than two months from excavation to filling, allowing the client to open the facility to the public in the month of July, exploiting the most profitable part of the tourist season.

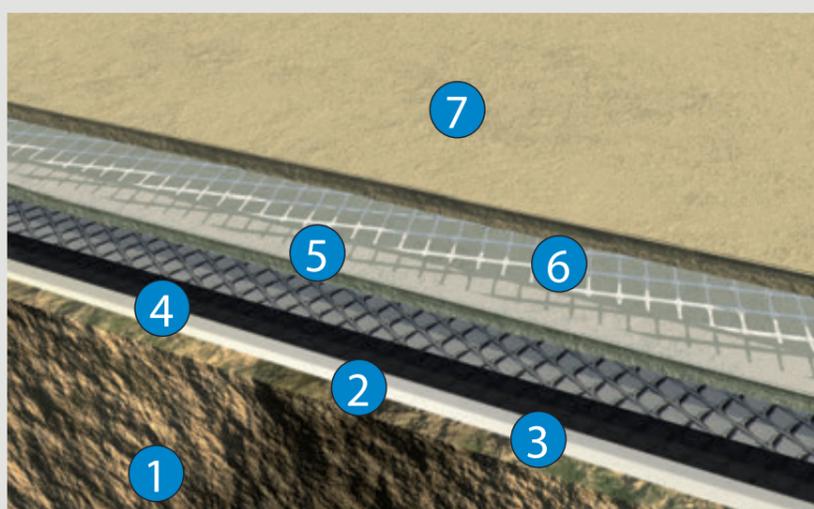


A REVOLUTIONARY PATENT

that has radically changed the very concept of the swimming pool

Years of research and product development and the many hundreds of public and private swimming pools that we have built throughout the world have resulted in the development of Biodesign, a patented construction technology of low environmental impact, which has both an extraordinary waterproofing quality as well as a superior structural performance. **Technical data sheets show how our waterproofing is superior to that used in traditional pools for its elasticity (+300%) and durability, in addition to greater resistance to UV light, ice and chemicals.** Biodesign structural paving, composed of specially formulated resins and quartz, **has a greater mechanical strength than structural concrete.** In order to understand their real value, these differences, which in themselves are clearly superior to the traditional pool-construction systems, must be compared based on their use: **in fact, since the Biodesign structure is laid over it, the waterproofing liner when immersed in water, is not subject to the pressure and load of the water itself.**

PATENTED BIODESIGN TECHNOLOGY



SYSTEM PROTECTED BY INTERNATIONAL INVENTION PATENT

1	EXCAVATION
2	PROTECTIVE GEOTEXTILE
3	WATERPROOF EPDM LINER
4	CONSOLIDATION NET
5	ROUGH LAYER STONE & RESIN FINISH
6	INTERMEDIATE CONSOLIDATION NET
7	FINISHING LAYER STONE & RESIN FINISH

CONSTRUCTION TECHNOLOGY



A traditional concrete pool is sized to withstand the structure's own loads (about 600 kg per m²) plus the thrust and weight of the water it contains (140 cm water depth = 1400 kg per m²). The thickness and therefore the weight of the structure thus become essential RIGID elements whose overall weight is borne by the ground on which it is installed.



A Biodesign swimming pool bears a very limited structural load (about 70kg per m²) and is NOT subject to any load from the weight of water it contains. In fact, the thrust and weight of the water is transferred entirely to the ground that, thanks to the elasticity of the waterproof liner (+ 300%), is free to move and settle without any damage to the pool.

STRUCTURE CERTIFICATIONS



UNIVERSITY OF MODENA AND REGGIO EMILIA, ITALY
"Enzo Ferrari" Department of Engineering

Resistance and compression tests

Content:

- Structural description of the application of Biodesign technology building material.
- Analysis of materials and results of experimental tests.
- Analysis of actual loads.

Conclusions of the study:

- Biodesign technology provides a high degree of resistance when compared to the stresses generated by the thrusts and pressure of both the soil and the water.
- The structure is free from extra loads caused by soil movement.
- The structural paving made of quartz and resin is easily able to support the secondary loads.
- The Biodesign structure has strong and significant mechanical properties.
- Based on the considerations set out in this study, for ordinary Biodesign projects there is no need for additional structural inspections.



Researchers

Angelo Marcello Tarantino
Professor of Building Science

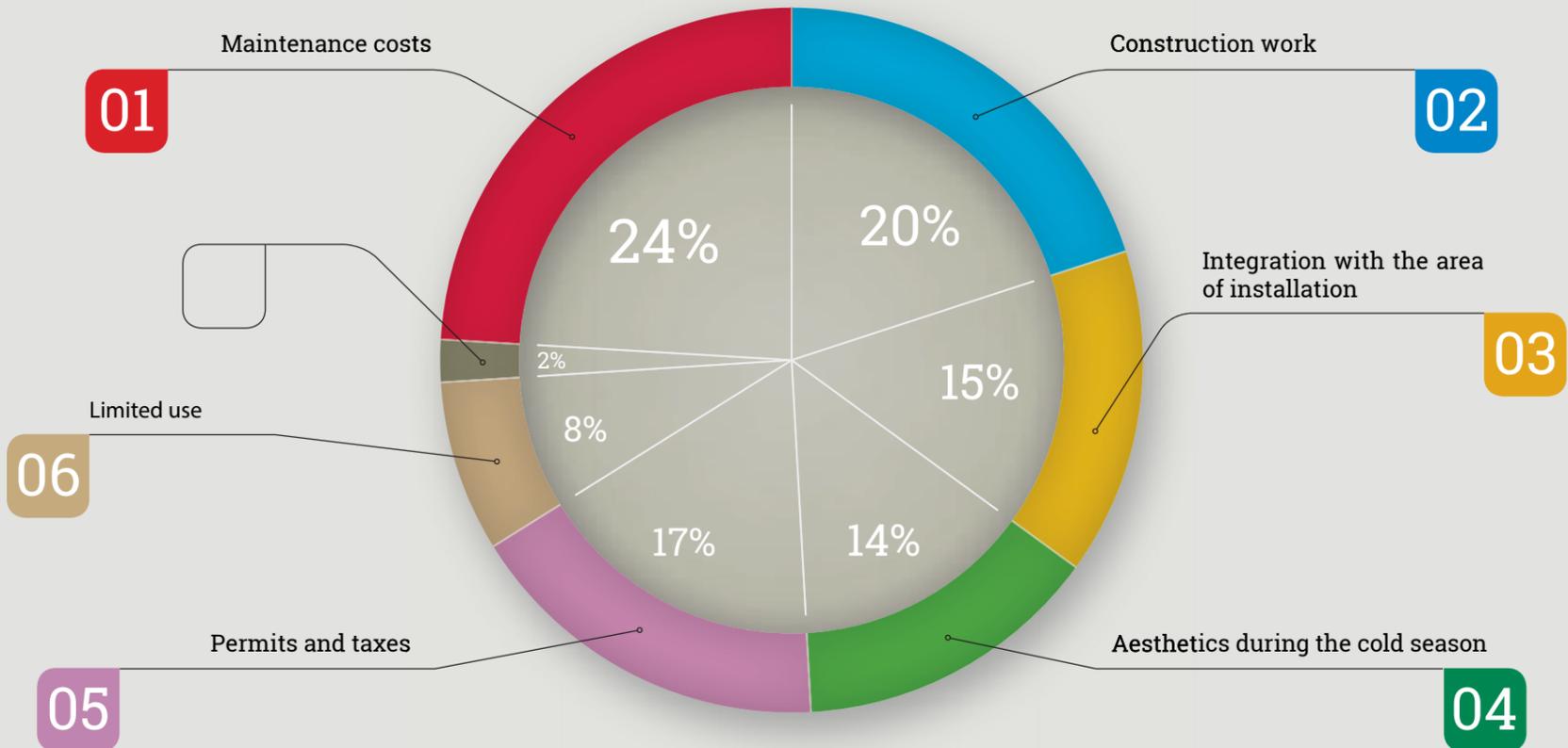
Andrea Nobili
Researcher Role in Building Science

Luca Lanzoni
University Researcher (open-ended employment contract) in Building Science

Modena, 4/10/2012

MARKET RESEARCH: the swimming pool market in the context of Italian real estate

The object of the study was the low number of private swimming pools in Italy compared to other countries with similar climatic conditions and wealth per capita. The data used for the initial premise of the research comes from the cadastral land registry at a national level which provides information on 36 million homes, 2.5 million of which have a private garden. This real estate wealth, unique in Europe, located in a very favourable climate zone together with a strong orientation towards property ownership typical of Italian culture does not explain the reasons for such a limited number of pools both in absolute terms (about 130,000 pools) and installed each year. We interviewed a sample of potential customers and owners of swimming pools, asking for their explanations for this disparity. We found the following negative considerations based on standard pools.



The comparative photographic below explains the differences of Biodesign product to the traditional swimming pools.

01 Maintenance costs

The cost of maintaining a pool depends on the kind of use it is subjected to. The greatest inconvenience for owners of a standard pool is maintenance even during the period of non-use. In contrast, Biodesign can operate for entire seasons in the lake mode with minimal interventions and then be reconverted to a swimming pool when needed without ever degrading the surrounding landscape.



INVASIVITY



BIODESIGN REVOLUTION



02 Construction work

Biodesign pools can be installed very quickly, by a single operator and especially with extremely low construction impact. There is no need for complex and extremely invasive construction works.



INVASIVITY



BIODESIGN REVOLUTION



03 Integration with the area of installation

Biodesign creates a new setting in perfect harmony with the landscape and fully integrated with the garden. In fact, Biodesign is always a decorative feature of the garden.



INVASIVITY



BIODESIGN REVOLUTION



04 Aesthetics during the cold season

Biodesign is an all season pool. It is always a decorative feature for the garden even in harsh environments as it is unaffected by freezing temperatures.



INVASIVITY



BIODESIGN REVOLUTION



05 Permits and taxes

Biodesign is a non-invasive concept based on fully certified technologies intended for the creation of small artificial lakes, with no reinforced concrete or environmental pollution. As a result it is much easier to obtain permits and increases in property taxes are less likely.



INVASIVITY



BIODESIGN REVOLUTION



06 Limited use

Biodesign is designed and furnished as part of the home so as to offer maximum liveability: seats, beaches, and wellness zones turn your pool into a small garden spa.

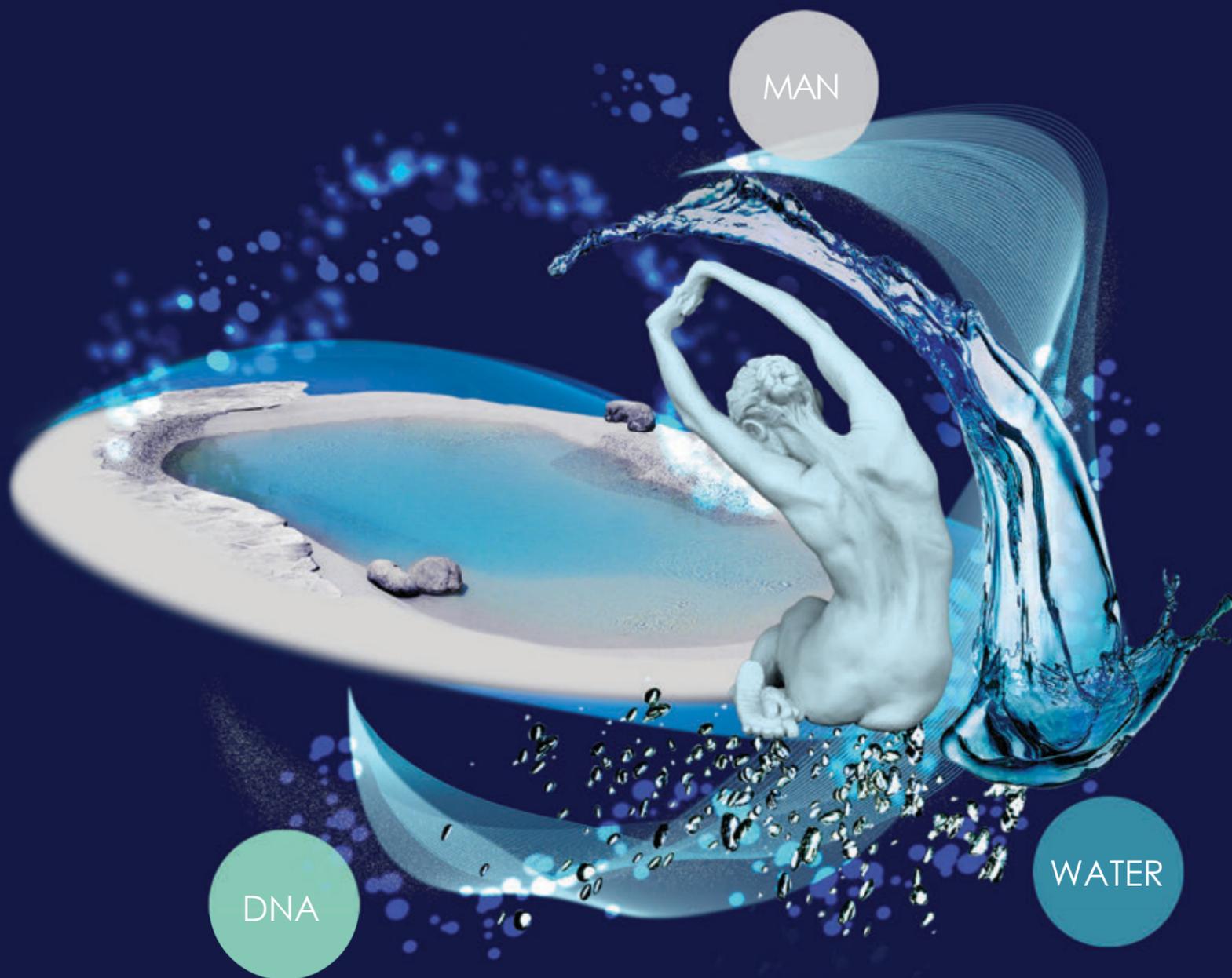


INVASIVITY



BIODESIGN REVOLUTION





Man,  by his very nature,  has always sought 

Water, and is now rediscovering it in a unique, tailor-made space:
a perfect blend of relaxation, design and style.

Biodesign construction technology allows building completely customized pools that are
ideal for a variety of contexts and are environmentally friendly.

It overcomes the limitations of conventional swimming pools... Visit our website...
Biodesign technology will make it easy for you to have the pool you dream about.

Biodesign

The Living Pool



Via Terradura, 106 - 35020 Maserà di Padova, Italy
Tel. +39 049 8862961 - Fax +39 049 8869414
www.biodesignpools.com - comunicazione@biodesignpools.com