### **FOREWORD**

"When the majority of Central European countries are socially and politically divided and our age is characterized by the late realization of social, financial and ecological crisis, incapacity drifts us into an even worse situation, the case of construction could be a generating power forcing people thinking differently to accept an integral vision of the future. It is impossible to break out from the crisis alone, this is why national and regional forms of cooperations are so important and significant." Ernő Kálmán DLA

Association of Hungarian Architects (AHA) was established in 1902, in one of the most dynamic era of progress of Budapest and the whole country. Its historical role is to maintain the architectural monuments unique in Europe and worldwide, preserve traditions, develop architectural values, express opinion and control in favor of the built environment. The International Union of Architects was established on the initiative of Ernő Goldfinger and Peter Vago, the son of Joseph Vago, who was one of the founders of AHA. The AHA has been a member section of the UIA since 1954. Staying true to its past and traditions, it actively cultivates this relationship being committed to the renewal of the UIA. AHA firmly takes part in the work of the region, most of all in the activity of the Spiritual Places and the Renewable Energy Sources work programmes and also in the International Competitions Commission.

I have been working as president of the AHA since 2008. By the means of the activity as alternate council member and through the help of László Földes council member, the AHA intensely takes part in the UIA Council.

In March 2008, we established the Visegrad 4 Competition which is intended to strengthen the identity of the Central European countries to promote the common traditions of the environment, economy and culture. The new common architecture policy document and jointly organized exhibitions (e.g. Visegrad Family Houses) as well as the common celebration of the World Day of Architecture fortifies the cooperation between the member countries. Besides these, the Visegrád 4 supports other collaborations such as MASA, the Baltic

countries and FABSR. In the framework of the regional cooperations the Association of Hungarian Architects stresses the importance of the relation with the Far East. In 2008 Hungary organized the Presidents' Meeting and it arranges annually the Spring Architecture Festival and the Month of Architecture in very fall with the intense participation of V4 and UIA representatives. Over and above the regional cooperation, our further programme contains the making up of the Hungarian CDP programme and the preparation of international competitions in Hungary. Furthermore, the AHA also leads the Sustainable Future Work programme within the framework of the UIA-Areas programme. Lately, the Association of Hungarian Architects offers the Value-based programme analysis method for the Heritage Work programme in order to help saving the historical towns in the V4 countries and all over the world

The AHA cooperates with the Chamber of Hungarian architects creating the division of the tasks on the protection of interests and maintaining architectural value. In Tokyo, at the 24th UIA World Congress, Association of Hungarian Architects greets the architects of the world and recommends to their attention the merits of contemporary Hungarian architecture.



























Ödön Lechner

Emil Vido

Foundation diploma of AHA, 1902

## ASSOCIATION OF HUNGARIAN ARCHITECTS

### **BOARD OF PRESIDENCY**

### President:





### Vice presidents:







Gyula Istvánfi Dr

Members of presidency:



Béla Borvendég DLA honorary professor, honorary president of AHA

János Böhönyey honorary professor, honorary president of AHA



Ferenc Cságoly DLA











Alternate members:





Antal Puhl DLA senior lecturer



János Roth DLA

### Supervisory Board





Levente Varga DLA



Henrik Bolberitz



Henrik Hőnich



Miklós Marosi DLA

### Supervisory Board, alternate members





Gábor Locsmándi PhD



Villő Detre

## THE UIA AND THE AHA

## THE UIA AND THE ASSOCIATION OF **HUNGARIAN ARCHITECTS**

Architects had two main organizations of their own in the first half of the 20th century: CPIA (Comité permanent international des architectes, the Permanent International Committee of Architects) which was founded in 1867 with French dominance and CIAM founded in 1928 to continue the heritage of Le Corbusier and thus regarded as the stronghold of Modernist architecture. Péter Vágó managed to make a compromise between the two in a post-war Europe and also in making UIA (Union Internationale des Architectes) a worldwide one by establishing it in 1949. As opposed to its antecedents, UIA had been continuously active via thematic work groups. The exceptional organizational skills of Péter Vágó matched with his professional connections and his commitment to architecture helped UIA to have a kind of special spirituality focussing on progressive architecture committed to society.

Hungary's contribution to the foundation of UIA goes beyond Péter Vágó's activities who had been brought up in a famous family of architects in Budapest. Born in Budapest and graduating in Paris, Ernő Goldfinger lived in London from 1934 on. Besides Vágó he was another engine of the foundation of UIA active as its first organizing secretary. Later on, owing to his excellent architectural works he was elected a regular member of the Royal Academy of Arts. By bringing together architects from all over the world, this international organization was thus created on the initiation of two Hungarian-born architects, and its success is proven by its activities spanning over more than 60 years now. MÉSZ (that is, its international section) is a member of UIA (Union International des Architectes) - the International Union of Architects -, as well as of ACCEE-nek (Architects Council of Central and East-Europe) and EUROSAG (European Salaried Architects Group) and supports the organization of UIFA (Union Internationale des Femmes Architectes), the International Union of Female Architects. Its immediate predecessor was the Association of Hungarian Architects founded in 1951 which was renamed in 1989 and has been named the Association and Chamber of Hungarian Architects since then. It has efficiently cooperated in the creation of the legislative conditions for the birth of an independent chamber. To be able to do so after the foundation of the Chamber of Hungarian Architects in 1997 in legal continuity the Association of Hungarian Architects (MÉSZ) was founded.

The headquarters of the Association of Hungarian Architects is being maintained and operated as an architectural centre, a venue of meetings for architects and society as an open house. It creates values by a system of awards and recognitions to have the creative works of architects recognized more widely in society. Members of the Association of Hungarian Architects are professionally acknowledged and recognized individuals of the architects' society. Its periodical titled the old-and-new Hungarian Architectural Art is published six times annually – it was founded and is being published by the Association. The Association of Hungarian Architects ceremoniously confirmed its foundation document dated in 1902 on October 5th, 2009 - the World's Architecture Day. This confirmation reflects the acceptance and undertaking of the role of architecture in the 21st century as well as the responsibility for society. Hereby we are quoting some excerpts from it. "When the majority of Central European countries are socially and politically divided and our age is characterized by the late realization of social, financial and ecological crisis, incapacity drifts us into an even worse situation, the case of construction could be a generating power forcing people thinking differently to accept an integral vision of the future. It is impossible to break out from the crisis alone, this is why national and regional forms of cooperations are so important and significant (...) The cooperation of the Visegrad 4 is based on our common past and our future is rooted in the concentration of forces. These ideas form the basis of the cooperation and joint programme of the Visegrad Four (V4) alliance founded in March 2008. (...) Our joint historic past is best exemplified by the oeuvre of László Hudec. Born in 1893 in Besztercebánya (Banská Bistrica), he became a leading architect of the modernist architecture of Shanghai in the 20th century. This association joins the Visegrad countries with one of the most progressive economic locations of today (...) Our common past does not separate, but joins us. The goal of the four Visegrád countries and of the Association of Hungarian Architects is to get our countries to realize the joint powers hiding in this..."

### Presidents of AHA 1951-2011

Ármin Tabéry











János Böhönyey









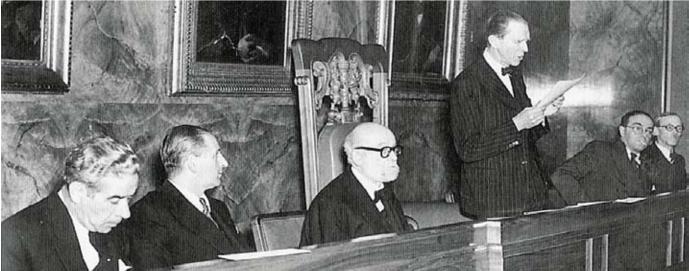
1998-2002





2006-2007





Preparatory meeting of the foundation of UIA with Ernő Goldfinger and Pierre Vago, 1947

# AHA CANDIDATES FOR UIA, 2011



ERNŐ KÁLMÁN DLA ARCHITECT

Candidate for UIA Region II. Vice President and UIA alternate Council member

1957	Debrecen
1982	Technical University of Budapest,
	diploma of architecture
1988	chief design engineer
1988-90	Master School of Architects,
	postgraduate diploma
2004	DLA degree at Technical University of Budapest

#### Professional career

	employed, independent designer
1988-91	Light Indusctry Design Company,
	independent designer
1991-92	Mont-Teampannon Architecture Office,
	leading designer
1992-	co-owner of Realtery Studio

lecturer of Technical University of Budapest

1982-88 Public Building Design Company (KÖZTI),

### **Awards**

1994

1993	Pro Architectura Award
2000	Ybl Prize for Architecture

1994-95 Elementary School, Debrecen

### **Major works**

2000	Klebelsberg Centre for Culture and Art,
	Budapest
2000	Educational Centre, Debrecen University
2001	Reformed Pensioners' Home, Budapest

### **Public life**

1982	Member of Association of Hungarian
	Architects
1985-86	charter member of the renewed
	Chamber of Hungarian Architects
2002	regular member of Planning Council of
	Budapest
2006	vice-president of AHA
2007-	president of AHA



### TAMÁS VARGA DLA ARCHITECT

### Candidate for UIA **Education Commission Director**

Budapest

2003	Technical University of Budapest, DLA
Profes	ssional career
1988-19	993 KERTI Stúdió Kft., designer architect
1993-	BUTE Faculty of Architecture,
	Department of Residential Buildings
1988-	lecturer at the Department of Residential
	Buildings
1993-	assistant lecturer
1996-	senior lecturer
2004-	associate professor
2006-	deputy dean on education,
	BUTE Faculty of Architecture
2010-	associate professor, department deputy director

Technical University of Budapest, Diploma

### **Awards**

1964

1988

2001 Roof of the Year Award Telki Elementary School - Designer Prize 2002 Pest County Architectural Award 2008 Saint Gobain Architectural Award 1st Prize 2009 ALUTA Architectural Award 1st Prize

### **National competitions**

Home for the Elderly Budapest, 1st Prize 2004 National Oncology Institute Linac Irradiater

### **Activity in education**

Official responsible of class for "The basics of architecture lecture". Official responsible of the undivided 5 year long training for the lecture called Pre-complex. He takes part in the training of the lectures called Complex, Diploma planning, and also the optional lecture of the Department called Interior design of residential buildings, as well as the specialised engineer training and consultant of the doctoral training.

Recent works		
2004	EuroCare Rt. Dyalysis Center,	
	National Oncology Institute Linac Irradiater	
2005	Szent Imre Hospital, Budapest	
2007	BBRAUN Office Building, Budapest	
2008	VFWG Sport and Leisure Center, Budapest	
2008	Volunteer Fire station, Balatonfüred	
2009	Tengelice Kindergarten, Telki	



LÁSZLÓ FÖLDES ARCHITECT

### **Candidate for UIA Council Member**

1959	Budapest
1985	Technical University of Budapest, Diploma
1988	TU of Helsinki, Finland, Scholarship
1989-91	Järvinen & Airas Architects, Helsinki, Finland
1991-94	CD Design Architects Ltd., Gábor Turányi
1992-94	Masterschool of Architecture, XII. cycle.
1994	Földes & Co. Architects Ltd.

Awards	
1985	Diploma Prize, apartment building, Király Street
1997	Pro Architectura Prize, forest school, Visegrád
2003	Pro Architectural Prize, W.E.T. Innovation building
2005	Fair Play díj, NOC of Hungary,
	"Action Category", Toldy Gymnasium
2005	Média Architectural Prize,
	dwelling house + light transmitting concrete
2006	Ybl Miklós Architectural Prize

### Competitions

1999	Three apartment building,
	Maassluis, Hollandia. 1st Prize
2008	Health Centre, Balatonalmadi, 1st Prize
2009	Kemenes Volcano Park, 1st Prize

Forest School, Visegrád

### **Selected works**

1994

1990	rono iviusichouse, il.scriedule, budapest
1997	Three Apartment, Maassluis, Rotterdam
2002	W.E.T. Innovation building, Pilisszentiván
2004	Gymnasium of the Toldy Ferenc Highschool,
	Budapest, I. Toldy F. St.
2004	Dwelling House + Light Transmitting Concrete
	Szilas-brook
2007	City Hall, Szegvár, reconstruction of the castle

Health Center, Balatonalmádi

### **Public life**

2008

2005	AHA presidency:alternate member, foreign affairs
2005	Architect's Coversations
2006	UIA Competition Commission
2007	National Cultural Foundation Architecture College
2008	UIA Region II Council Member

## HUNGARIAN ARCHITECTURE IN THE 20TH CENTURY

### ARCHITECTURE OF HUNGARIAN SECESSION

### Text: GYÖRGY SZEGŐ

The artists of the 1890-1919 period thought of art as a trend welding all the genres together. Art nouveau was referred to as secession in Central Europe indicating the "exodus" from the hierarchical and the imperial milieu of the Austro-Hungarian Monarchy. The appearance of the movement was coincidental with the commemoration ceremonies of the 1000 years anniversary of the foundation of the Hungarian State in 1896, with Budapest unprecedented making a brisk-paced metropolis from 1873 to 1914 and becoming flourishing cultural centres indicating the solidification of the provincial economy. The survey and the subsequent integration of the motives relating to peasant life and folk art into architecture and applied arts was a parallel process to that. The group uniting among others Károly Kós, Dezső Zrumeczky, Béla Jánszky, Dénes Györgyi, Valér Mende and was called as 'The young' did pioneer efforts in that. Not only did they simply transfer the samples but through putting them to the proof in synergy with the vanguard scientific explorations of their time they, in effect, weaved the creativity out of the collective experience and the painted intuition lurking dormant in the semantics of the icons of folk art and of mythological texts so that they could design using such materials as stone, metal, wood, ceramic and glass. It was an eminent and world-famous handicraft they ended up calling into being by such individuals as Miksa Róth, with his glass factory and Vilmos Zsolnay, with his ceramic factory leading the way and adopting the uniquely applied eosine glazing. Using the orgiastic and vegetal idiom of the world as a maker Ödön Lechner, Béla Lajta, Lajos Jámbor, Zoltán Bálint, Marcell Komor, Dezső Jakab, Zsigmond Quittner and József Vágó created such plastique and statuesque architecture that welds the duality of building and ornamentation into an organic and living whole. The novelty of using this technology, principally in shaping ferroconcrete, was even at an experimental stage gotten down to a fine art by István Medgyaszay or Lipót Baumhorn. There was an especially taut tie-up between the artists belonging to the Gödöllő Art Colony, Aladár Körösfői-Kriesch, Sándor Nagy, Géza Maróti and the representatives of the Finish secession. By these days Hungarian secessional architecture has become a nationally known and acclaimed intellectual accomplishment integrating all the artistic genres.



Géza Maróti: Pavilon of Expo, Milan, 1006

### HUNGARIAN ARCHITECTS IN THE BAUHAUS

### Text: VIRÁG HAJDÚ

The Hungarian students of the Weimar Bauhaus were all acquaintances and good friends as many of them had originally come from Pécs. The town was being dragooned by the Serbian military occupation between 1918 and 1921 and it also took its toll on daily life insomuch that the civil organizations were blue-pencilled, nav. banned. Young and talent architects searched their place in the more opened cultural centres of Europe. Alfréd Forbát (1897-1972) travelled to Munich in 1918 where he became Theodor Fischer's disciple at the Technische Hochschul. Counselled by his master he travelled to Weimar in September in 1920 where he held a post for almost two years in Gropius' office. That the office was in an excellent rapport with the Bauhaus facilitated Forbát simultaneous latching onto schoolwork. In 1919 Forbát conducted the young Marcel Breuer to Weimar, where the young talent, became the teacher and leader of the carpenter's workshop from 1920 to 1925.

Farkas Molnár (1897-1945) was studying to be a painter at the Academy of Fine Arts, he also went on to the Faculty of Architecture at the Budapest University of Technology. During a journey in Italy in 1921, it was the German painter, Werner Gilles, who opened their eyes to the Bauhaus. Molnár enrolled for the Bauhaus Institut at the end of the same year.

In a volume of studies published to accompany the centennial Breuer Exhibition by Vitra Design, Barry Bergdoll analyses how European immigrant architects translated and adapted Modernism in American vernacular architecture as a result of 40 years' of research and practice. However, he mentions a waterfront resort house by the River Danube designed by Breuer as a factual anticedent as well as Gane's Pavilion in England as models setting patterns for the Modernist livingroom with a fireplace. He also refers to letters about the folk-art shop run by the architect's elder sister in Budapest to prove that the threefold Hungarian vernacular house and the kitchen with a freestanding chimney became sources of Modern architects as a result of the fieldwork done by the Breuer family. Forbát and Molnár had articles published in Hungarian journals about the Bauhaus and the new architecture but their Bauhaus-bound oeuvre finally approached its peeks abroad.



Farkas Molnár: Apartman, Budapest, 1932

### MODERNIST ARCHITECT OF SHANGHAI: LÁSZLÓ HUDEC

Works by László Hudec, Hungarian architect are hardly known in Europe, whereas he is famous in Asia as his name is associated with the architectural modernization of Shanghai. Having studied at the Budapest Technical University between 1911 and 1914, by 1916 he had already been a member of the Hungarian Royal Chamber of Architects. The same year saw him as a soldier fighting at the Russian front where he was taken prisoner of war. Making use of the chaos ensuing after the outbreak of the revolution in 1917, Hudec escaped with three other prisoners, and arrived in China.

It was the right moment in Shanghai: the city was in for a large-scale economic development and the architect with a recently acquired diploma managed to get work almost immediately. In 1918 he was a draughtsman with the American Rowland Curry's office. From 1925 on he managed his own team of architects. As a champion of western Modernist architecture in China and a mediator of the modernizing lifestyle, he designed buildings of high standards to create the frameworks of a lifestyle and culture less known then in China. He designed a hospital, a theatre, a cinema and churches as well as private residences and bank buildings first for foreigners living in China, then to clients who were members of the prospering Chinese upper classes.

The aesthetics and forms with the mediation of which Hudec realized his inspirations within Chinese Modernism are closely related to the Central European architecture of the 1920s, especially to the unique trend of German Expressionism. This kind of architectural approach, "the other Modern" was based on the contemporary modern reinterpretation of the Gothic tradition featured by brick facades in dark tones, an Expressionist elaboration of details as well as by keeping a distance with the reductionist and abstract tendencies of contemporary avantgarde. The Northern German Expressionist architectural idiom was a modern one in Chinese towns back in those days, but was also hardly known. Hudec designed 37 buildings till 1941 in Sanghai. His name is associated with the tallest building of Shanghai erected in the first half of the 20th century: it is the Joint Savings Society Building (today: Park Hotel) built in 1932 which was the tallest structure between London and Tokyo in the interwar period.



László Hudec: Grand Theatre, Shanghai, 1933

## ARCHITECTURE NOW









# NEW ORNAMENTATION - HUNGARIAN CONTEMPORARY AND ORGANIC ARCHITECTURE

Text: GYÖRGY SZEGŐ

Our material exhibited at the 24th World Congress of UIA presents contemporary Hungarian architecture and its organic achievements to give an overall impression of the characteristic architectural trends of Hungary along with its turn-of-the-century antecedents. The work by Karl Bötticher titled The Tectonics of the Hellens started the debates concerning the ornamentation of 19th-century architecture as parts of protomodern procedures. This was attacked by Gottfried Semper (also teaching in Vienna) in his famous Bekleidungstheorie: for him it was the functional, space-forming faculties of ornamentation that came into focus. The venue of this theoretical debate was the architecture of the Monarchy with two opposing parties lead by Viennese Otto Wagner and Hungarian Ödön Lechner.

The negation of ornamentation by Adolf Loos turned into an axiom of the Modernists. In Transsylvania, which was torn away from Hungary, Károly Kós was the forerunner of architect-theoreticians at the end of the millennium. However, he was another

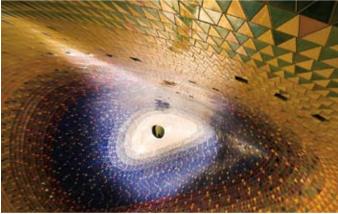
kind of philosopher: he wrote literature as part of his everyday practice and cultivated architecture and applied arts. He was an architect, a writer, a poet, a painter, a graphic artist, an ethnographer, an art historian, a manuscript typographer and a professional "book-maker". He drew a world of fairies with archaic roots and was in search of the homology of architectural and literary meanings.

In the past 25 years architectural practice once again put on the agenda the issues of ornamentation. One of the most important regions then was Hungary where the movement of Hungarian organic artists came to be associated with the national style of Ödön Lechner and Károly Kós on the one hand and the anthroposophy of Rudolf Steiner on the other hand. Simultaneously with this, Lévi-Strauss phrased Structuralism by approaching the synchronic system of ornamentation from language. The formula of structuralism defined by him as one of the potential configurations may also result in such a fertile interaction between the new ornamentation and organic













- 1. Tamás Nagy: Holy Trinity Church, Gödöllő, 2007. Photo: Tamás Bujnovszky
- 2. Ferenc Bán: Summer Cottage, Tokaj, 2000. Photo: Tamás Bujnovszky
- Mihály Balázs: MATÁV Headquarters, Budapest, 1999. Photo: Tamás Bujnovszky
  Dezső Ekler: Winery, Mezőzombor, 1993-95. Photo: Tamás Bujnovszky
- Gábor Zoboki Éva Oláh Zoltán Tóth: Richter Gedeon Chemical Research and Office Building, Budapest, 2007. Photo: Tamás Bujnovszky
- 6. József Finta: WestEnd City Centre, 1999. FIABCI Prize 2000. Photo: Tamás Bujnovszky
- Péter Kis, Bea Molnár: Laposa Winery, Badacsony 2010. ArchDaily Award 2011. Photo: Tamás Bulnovszky
- Mihály Balázs-Tamás Tarnóczky-Balázs Tatár: Knowledge Centre, Pécs, 2010. Photo: Tamás Bujnovszky
- János Tiba-Ida Kiss-Ákos Gerle: Parisian Department Store, Budapest, 2009. Photo: Tamás Bujnovszky

architecture that has never been experienced before. However, there are archetypes behind the symbols which are inseparable from the "shelters" of the collective unconscious – this is exactly what Hungarian organic architects represent consciously. New ornamentation seems to resolve this ambiguity at last. This is examplified by the building of the facelifted Parisian Department Store in Budapest where the forms of Art Nouveau are integrated with folding, and the tangram applied on the surfaces is exactly the "kaleidoscope" that Lévi-Strauss used as a metaphor.

It is not widely known but still obvious that "Hungarian creativity" has shown itself basically on the borderlines of art and science. In the past 150 or 200 years Hungarian creators were able to fill the gaps between visual/music culture and science/ technology. Hungarian artists, constructors, inventors and scientists became successful and useful in the wide world along this synesthesia. This kind of spirituality resulted in the excellent era of Hungarian culture and economy at the turn of the

19th and 20th centuries, during the period of Hungarian Art Nouveau, when architecture played a significant and leading role.

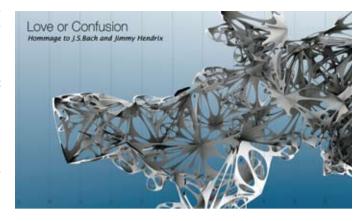
The modernism of visual arts and fine arts is not the mimesis of nature any more now. Its topic and essence is the language and communication. Visual language is highly similar in a variety of genres (both in multimedia-art and architecture) as visual intuitions may be associated with one another to make complexes that suit the interpretation of intuition by Gödel about the principles and axonometric medium. Visual crossovers, however, do not exclusively follow logical relations. They are more like multidimensional systems of images behind which the viewer is also able to perceive the metaphysics "building into it". As a continuation of Art Nouveau and contemporary architecture the organic trend exists now in Hungary and turns into a simultaneously developing idiom integrating both of them: they infer each other and converge.

## ARCHITECTURE TOMORROW

### **BÁLINT BOTZHEIM**

Bach-Hendrix Proto-Building for an Imagined Site. ICARCH tender project 2011

This proto-building is a research into the formal dimensions of the contrasting concepts of orderliness and disorderliness. It is a virtual material research in which the material qualities of viscosity and elasticity are present in the gravitational field as form-shaping factors as a result of decisions made by designers. The sharp contrast of the oeuvres of the two musicians accompany the morphology of the proto-form. The starting condition is that of perfect regularity, but in the simulation stage it already obeys to chaotic-differential equations. The proto-form flutters in the gravitational field whilst preserving its topological integrity and continuity. The parametres of the 3D maze of the proto-space created as a result of the experiment offer a suitable and appropriate model to receive functions such as that of a museum, although they are highly unusual for the presently prevailing expectations of recipients.



## GYÖRGY BÜKÖSDI

Marcel Breuer Memorial Museum, Pécs. Diploma Design 2010

The heart of the museum is a spacious exhibition space designed by György Bükösdi who applied a unique form-generating method based on parametric modelling. Their algorithm analyzes Breuer's oeuvre with the method of data mining. Pieces of information thus acquired are transformed into a 3-dimensional cloud of points parts of which control and guide the curves comprising the proto-skin. This form-generating process is able to create a mass of variations of the proto-skin depending on the parameters built in by the designer. György Bükösdi also developed an optimalizing algorithm capable of selecting the form variation suiting the defined conditions. The chosen final proto-skin is structurally rendered during a third parametric procedure, which is another development by the designer. The building designing process thus took place with an individual unique parametric algorithm from form-making to the definition of building structures. The permanent exhibition to be housed in the Breuer Museum presents the entire oeuvre, whilst the building-form itself is also born out of the representations of his top- achievements.



### **BARNA KOVÁCS**

**Expressive Geometry** 

The geometry present in works by Barna Kovács D. filter the character of the object or building and thus becomes an essential part of the concept itself. Characteristic elements reoccur in his works with spatial formation organically merging functional and structural components. His experiments reveal organically waving space dividers, individually designed items of furniture and structures exerting their influence via continuous transformations. In his architectural designs the geometry following flowing masses is closely associated with structure. His outstanding design of the Opera House in Busan is a developed technology: with the help of this system he could create the integrity of the exterior of the building and its interiors. What is more, it plays an important role in communication, space-forming and building structure and thus makes its own contribution to the special aesthetic effects of the space.



## PÉTER ROMVÁRI

vFlow

vFlow is a new designing device which makes it possible for us to construct spectacular structures easily and quickly. Studying the micro-level of nature and modelling especially the correlations of the organization of cells a solution was born by using the Voronoi method. This could be suitable to design special details of interior design or temporary pavilions. Designing itself takes place in a self-developed programme which is able to follow any kind of a curved surface. By considering other parametres given for the operation – thickness, orderliness, etc. – the programme generates a space-dividing component. The result is not only the break-up of the surface into planes but also the enrichment of the cellular structure with structural and visual additions. The components are automatically generated by the programme. An internal hierarchic numbering system helps to define the spatial positions of a variety of elements and thus the efficient organization of the structure.



## **HUNGARIAN INNOVATIONS**

### LITRACON™ LIGHT-TRANSMITTING CONCRETE

Áron Losonczi

The Litracon™ Light-Transmitting Concrete is made up of optical glass fibers and fine concrete. It can be applied as a prefabricated construction unit. Between the two main surfaces of each unit thousands of optical glass fibers run parallel with one an other constituting a matrix. Compared to the whole construction volume the proportion of the fibers is relatively low (5%), accordingly it allows them a perfect mingle and a structural fusion with the concrete as if it were a sort of finely-particulated concrete aggregate. The surface of the units, therefore, shall continue to retain its homogenous concrete-like quality. The glass fibers transmit light between the two sides at their whole length. Given their parallel position the light-transmitted information emitted on the lighter side of the wall is undiminished when it reappears on the other, darker side. The most intriguing phenomenon induced may be the clear-cut and crisp manifestation of shadows on the reverse side of the wall. Besides, the colour of the transmitted light also remains unaltered. Whether it is natural or artificial, the light will be transmitted without any loss, even through an up to 20 meters thick wall, provided it's made of Litracon™ Light-Transmitting Concrete with its optical fibers. Given that the integrated glass fibers do not impair the inherently high bearing capacity of the concrete load bearing walls can likewise be constructed out of the units. The units can be constructed thermo-insulated and are available in various sizes. The Light-Transmitting Concrete as construction unit and its production technology was granted protection by patent in May 2002 in Sweden. The application for the national patent is well under way.



Mont Blanc Boutique, Tokyo 2006

### SPIDRON SYSTEM

Dániel Erdély

In geometry, a Spidron is a continuous flat geometric figure composed entirely of triangles, where, for every pair of joining triangles, each has a leg of the other as one of its legs, and neither has any point inside the interior of the other. A deformed Spidron is a three-dimensional figure sharing the other properties of a specific Spidron, as if that Spidron were drawn on paper, cut out in a single piece, and folded along a number of legs. It was first modelled in 1979 by Dániel Erdély, as a homework presented to Ernő Rubik, for Rubik's design class, at the Hungarian University of Arts and Design. The Spidrons can appear in a very large number of versions, and the different formations make possible the development of a great variety of plane, spatial and mobile applications. These developments are suitable to perform aesthetic and practical functions that are defined in advance by the consciously selected arrangements of all the possible characteristics of symmetry. The Spidron system is under the protection of several know-how and industrial pattern patents. It was awarded a gold medal at the exhibition Genius Europe in 2005, Since Spidron-system is the personal work by Dániel Erdély but in the development of the individual formations he worked together with several Hungarian, Dutch, Canadian and American colleagues, the exhibition is a collective product in a sense, several works and developments are a result of an international team-work. Many Spidrons are designed to correspond to deformed Spidrons that are also polyhedra.



### **LEONAR3DO**

Daniel Rátai

Dániel Rátai, the young winner of the chief award of Intel International Science and Engineering Fair ("the Olympics of young scientists") in 2005 developed the three-dimensional monitor. Before the development stage this device was made up of a pair of glasses with blue and red cellophane stuck onto it, three Christmastree lights placed at strategic points, a stick (the size of a pencil), a broken-down mouse, two web-cameras on both sides of the monitor of the computer and a selfdeveloped software, the total of which made drawing in three dimensions possible. The undistorted high-fidelity image appears perfectly lifelike in the space between the drawing person and the monitor. With this set of devices Dániel Rátai was able to transform an ordinary computer producing two-dimensional images into a three-dimensional one. The web-cameras set in two different positions could define the spatial positions by following the light sources, the pencil the point of which is a light source was held by the person seated in front of the cameras to use it as a spatial cursor. The line drawn in the air appears where it is actually drawn. It is as if an ink pencil would write in the air. The result is shown on the monitor, but we can see it in the space through the three-dimensional glasses. The image is not distorted: we can move in any direction in front of the monitor - it is much like a hologram. The imago thus created goes well beyond any spatial experience which has ever been generated by a computer so far.





## **HUNGARIAN INNOVATIONS**

# THE TECHNOLOGY OF FABRIC CONCRETE

Béla Sámsondi Kis



After graduating from the Budapest Technical University Sámsondi worked in Timisoara in the 1920s where he discovered the advantages of matching gypsum and concrete. Gypsum - maybe with the addition of other materials - "freezes" the poured in watery grout as a remaining shuttering, thus a vibro-vacuumed quality of concrete ensues without hydrostatic pressure. Cross-sections, the sizes of steel insert, the radius of the additives' granular structure thus became five time less than in traditional ferro-concrete structures. This is the so-called model-analogue construction and calculation. The same principle involves the creation of the so-called cell concrete or shell-concrete structure. Both the vertical and the horizontal loadbearing structures are folded plating that can be used multifunctionally as structural components such as built-in wardrobes, partitions, shelves, etc. Starting from a structural innovation he realized appr. 200 ideas of patent value. Such examples are the lift-slab technology, the linear urban fabric, building engineering integrated into the structure, the "self-repairing" structure, doors and windows without frames, etc. He offered all this to the state for free utilization in the 1950s. His efforts were doomed to failure back in those days as he suggested a method of construction which was geniously material- and energy-saving, but needed intelligent workforce in a period when material- and energy-wasting, quantitative and "overinsured" technologies were the priorities. Despite all this, many experimental buildings designed by him have been built. His water-saving technology is now even a more badly needed solution than ever before especially in the poorest countries with deserts and deserting regions. In 1965 Sámsondi published his comprehensive book titled Buildings of Fabric Concrete including his concepts.

# THE RECORDING OF HUMAN MOVEMENT

Rudolf von Laban

Labanotation is a system of analyzing and recording of human Movement. The original inventor is the Hungarian Rudolf von Laban (1879-1958) an important figure in European modern dance. He published this notation first 1928 as "Kinetographie" in "Schrifttanz". Several people continued the development of the notation. In the U.S.A. among others by Ann Hutchinson Guest to the notation known as 'Labanotation'.

In Labanotation, it is possible to record every kind of human motion. Labanotation is not connected to a singular, specific style of dance. The basis is natural human motion, and every change from this natural human motion has to be specifically written down in the notationby recording every aspect of motion as precisely as possible. One of the centers is situated in London called Laban Dance Center, the building itself was designed by Herzog & DeMeuron (2005). Labanotation is used in industrial research as well as in physiotherapy and psychotherapy.

In Hungary, architect Imre Makovecz has been developed a dynamic architectural 'Modulor'in the 1970s which translates the Laban-system for contemporary architecture by mediating Rudolf Steiner's ideas.



Rudolf von Laban with his students, 1930s



Imre Makovecz: Movement studies, 1970s

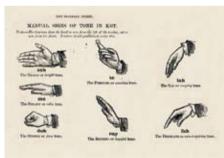
### **KODÁLY METHOD**

Zoltán Kodály

The international reputation of independent Hungarian music goes back to the early 19th century — that is the career of Franz Liszt as a pianist and a composer as well as the creation of the Music Academy founded by him. The institute is also a continuation of significant architectural traditions. In the 20th century the oeuvres of Béla Bartók and Zoltán Kodály made the roots of Hungarian music and the concept of musical education known throughout the whole world. Focusing on the traditions of folk music and vocal culture this method found followers all over the continents from the USA through Finland to Japan by using the architecture of relative solmization.

Established by the pedagogical oeuvres of the 19th-century masters of the Music Academy, the excellent musicians of the piano and violin school represented a definitive quality setting standards through generations on concert podiums in the 20th century. Besides the Great Hall of the Academy also the Vigadó building had a concert hall with excellent acoustics recognized worldwide. Today they are completed by the National Concert Hall designed by Gábor Zoboki in 2005.





Hand signes of Kodály method

GÖMBÖC

Gábor Domokos, Péter Várkonyi



The 'Gömböc' is the first known homogenous object with one stable and one unstable equilibrium point, thus two equilibria altogether on a horizontal surface. It can be proven that no object with less than two equilibria exists. If placed on a horizontal surface in an arbitrary position the Gömböc returns to the stable equilibrium point, similar to 'weeble' toys. The single unstable equilibrium point of the Gömböc is on the opposite side. It is possible to balance the body in this position, however the slightest disturbance makes it fall, similar to a pencil balanced on its tip. The question whether Gömböc-type objects exist or not was posed by the great Russian mathematician V.

I. Arnold at a conference in 1995, in a conversation with Gabor Domokos co-inventor of Gömböc. Shapes with a unique stable equilibrium are called monostatic; those with only one additional unstable point are referred to as mono-monostatic. Thus the Gömböc is the first convex, homogenous, mono-monostatic object. The Gömböc shapes is very sensitive, small changes can disrupt its unique properties. The width of the one on the pictures below was increased by a few millimeters (5%) due to a planning error. The result is 16 stable equilibria instead of 1. Some turtle shells behave similarly, suggesting that they are imperfect versions of a Gömböc-type shape.

## UIA-AHA WORK PROGRAMMES 2008-2011

UIA-AHA Future Vision and Strategy and Continuing Professional Development Work Programme ERNŐ KÁLMÁN DLA



UIA Council member and International Competitions LÁSZLÓ FÖLDES



UIA-AHA Sports and Leisure Work Programme DÉNES PATONAI DLA



Promote the development of sustainable sports and leisure facilities, taking into account their cultural and environmental settings. Further international exchanges of information and cooperation in the field of building for sport and leisure. Collaboration and consultancy in relation with partner organisations. International knowledge sharing about exemplary projects. Developing a network of specialists in sports facility architecture.

UIA- AHA Habitat Work Programme ANDRÁS KRIZSÁN



**GYÖRGY KEREKES** 



Overall objectives: Foresee the situation of Eastern European agglomerations in 2050. Triennal objectives: Comparative study on the evolution of population and employment and the impact of global warming on habitat and agglomerations.

UIA-AHA Educational and Cultural Spaces Work Programme GYULA ISTVÁNFI



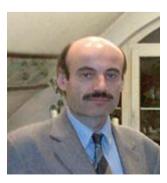
Overall objectives: Based on the belief that culture and education are fundamental human needs, wherever they occur, this programme looks not only at the edifices dedicated to them activities but also at their impact and social function. Triennal objectives: Exchange and diffuse exemplary architectural, cultural and educational experiences from the largest number and widest variety of contexts.

### UIA-AHA Spiritual Places Work Programme GÁBOR CSANÁDY DLA



Overall objectives: Teach forms of practice and means of expressing spiritual values through architecture and public spaces that respect cultural, social and religious diversity. Current activities: Creating an interactive knowledge platform for schools of architecture; organizing events dedicated to minority cultures in multicultural and multi-religious societies

### UIA-AHA Public Health Work Programme ISTVÁN ZSOLT KISS DR



Offer effective, aesthetic and safe health facilities that encourage high

quality care and patient recovery while at the same time improving working conditions and job satisfaction for health professions. This programme has established a network of specialists in health facility construction, which allows for capacity building both within the network and with other architects, engineers, consultants, suppliers, healthcare managers and organizations as well as governmental authorities.

Triennal objectives: In this period the programme will concentrate on how to make health care facilities as sustainable and accessible as possible while keeping costs to a minimum; affordable healing environments.

### UIA-ARES-AHA Renewable Energy Sources Work Programme

Overall objectives: The programme seeks to implement passive energy principles, techniques and systems in order to improve the quality of interior environments while using minimal energy. Triennal objectives: Diffuse bioclimatic architectural design principles and examples and promote the use of renewable energy sources to an ever-wider world market.

### UIA-AHA Science and High-Tech Facilities Work Programme GÁBOR BECKER DLA



## AHA PROGRAMMES 2008-2011



### **SPRING ARCHITECTURE FESTIVAL**

Launched by the Association of Hungarian Architects in 2008, the Spring Architecture Festival is now a full-grown tradition with the primary objective to bring closer Western and Eastern European architecture and professionals. Every March and April a number of Hungarian and international events enrich the programme of the festival such as conferences, exhibitions and professional discussions. In 2010 the 3rd World Meeting of Hungarian Architects was also made part of this series of programmes with the aim to bring together Hungarian architects scattered all over the world and to give them the long-missed chance to put their heads together.



### THE WORLD ARCHITECTURE DAY, THE AUTUMN ARCHITECTURE FESTIVAL

Established by UIA as a tradition, the World Architecture Day is a celebration joined also by Hungarian architects. Since 2008 several exhibitions are opened on this day simultaneously and also professional prizes are awarded. Events take place at a variety of venues — they are integral to the three-week Autumn Architecture Festival organized for three years now. This is when the new family house architecture of the Visegrad 4 countries are presented, along with Hungarian architects awarded prizes of the profession and the winners of the House of the Year tender. By 2010 this festival has grown into a significant event of Hungarian cultural life being also an important meeting for Central European architecture.

### **UIA CONFERENCE, BEIJING, 2008**

The Association of Hungarian Architects is a member organization of UIA since 1955. In October 2008, the Association of Hungarian Architects was represented in Beijing UIA International Conference by 8 delegations.

### **UIA II. REGION PRESIDENTIAL MEETING IN BUDAPEST, 2009 MAY**

UIA organized its II. regional conference in Budapest between the 5th and 7th of March, 2009 with the participation of the chairmen. The Association of Hungarian Architects has been a member since the foundation of the II. Region of UIA and thus represents the international interests of Hungarian architecture to promote the inclusion and involvement of Hungarian architecture and architects in international architectural discourses. The worldwide organization of UIA divides its member countries into five regions. Region II, which Hungary belongs to via the Association of Hungarian Architects, is the largest of them: it comprises a total of 33 countries from the Near East to the CIS (Commonwealth of Independent States), from the Baltic states through the Balkan Peninsula to Eastern-Central Europe.



### CONTEMPORARY HUNGARIAN ARCHITECTURE IN PARIS, 2010 MARCH

The Association of Hungarian Architects was invited to organize an architectural festival by the Hungarian Institute in Paris with events such as an international conference of architects, Hungarian historic and contemporary architectural exhibitions, outdoor shows, joint programmes for French and Hungarian students as well as creative weeks. Participants of the opening ceremony were greeted by András Ecsedi-Derdák, the manager of the Hungarian Institute in Paris and Ernő Kálmán DLA, the chairman of MÉSZ. Louise Cox, the chairwoman of UIA and Albert Dubler, chairmen of UIA Region II. praised the merits of the organization of the Architectural Festival. The exhibition was opened by Paul Quintrand architect-professor, a member of Académie d'Architecture and honorary doctor of Budapest Technical University. The trustee of the exhibitions was György Szegő, the editor-in-chief of the periodical Magyar Építőművészet.

### BRIDGES, CONFERENCE IN SHANGHAI, 2010 OCTOBER

Visit of the delegates of Association of Hungarian Architects in Shanghai to build the professional cooperation on the field of architecture between Chinese and Hungarian contemporary architecture. The aim of the visit was to introduce Hungarian architecture and architecture offices to the Chinese architects and their professional organizations, following the heritage of architect László Hudec born in Hungary and worked in Shanghai for several decades. The visit was organized together with ASSC in Shanghai. As a document of the visit our periodical, the old-new Hungarian Architecture edited a bilingual Chinese-English publication containing articles on the programme of the meeting, contemporary architectural exhibitions, book shows, László Hudec, whose oeuvre defined the architectural character of Shanghai in the modern era.



### EUROPEAN FORUM FOR ARCHITECTURAL POLICIES, BUDAPEST INTERNATIONAL CONFERENCE, 2011 MAY

The European Forum for Architectural Policies aims to foster and promote architectural policies in Europe, bridging public governance, profession, culture and education. One means to achieve this aim is to provide a forum at its biannual conference for continuous exchange of information and dialogue on architectural policy, to promote the creation and operation of national architectural policies by presenting working national, and in some cases local architectural policies, the way in which they were created and implemented, and the results that they produced. The main topic of the Budapest conference is water and the River Danube, revealing the architectural and spatial planning relevance of the European Danube Region Strategy. The international conference will provide the opportunity to direct attention, in a European context, to the issues of our global world that require common solutions of urban planning and architecture.

### CHINA INTERNATIONAL ARCHITECTURAL EXPO, BEIJING 2011 OCTOBER

The Association of Hungarian Architects builds strong connections with Chinese architects with a great success. As a result, China International Architectural Expo which is the most influential and widespread event of the building and construction industry in China will open for Hungary in 2011. Over the past5 years, China Architectural Expo has attracted a large number of professional visitors from all around the world. The main exhibiting country of EXPO 2011 Beijing is Hungary.