

## **GREEN ROOFS in Puerto Rico and the Caribbean**

This half-day seminar aims to inform local professionals of the benefits, regulations and politics concerning Green Roofs. The multiple speakers from different countries will allow the audience to better understand diverse perspectives of the Green Roof Industry. The themes presented the seminar are: European politics & history, US Market tendencies, real-estate advantages, installation process, regulation and standards, and environmental benefits.

### **Conference Schedule**

12:30pm – 1:00pm	Introduction	Municipal Representative
1:00pm – 2:00pm	Green Roofs in the Puerto Rico Real Estate Market	Juan C. De Jesús, SRA
2:00pm – 2:45pm	Green Roofs in LEED Point's Interpretation	Vincent Pieri, AIA LEED AP
2:45pm – 3:00pm	Coffee Break	
3:00pm – 4:00pm	Green Roofs Benefits	Nicholas Smith
4:00pm – 5:30pm	A Political and Technical Guideline to Green Roofs	Wolfgang Ansel
5:30pm – 6:00pm	Green Roof role in Local Environmental Regulation	David L Aponte, GRP
6:15pm – 7:00pm	Wine & Cheese	

## **Synopsis & Speakers Info**

### **1. Green Roofs in the Puerto Rico Real Estate Market**

*The Puerto Rico Real Estate Market has seen a steady increase in the amount of green roofs installed and currently they are present on residential, commercial and government buildings. While it has not become a mainstream amenity, increased awareness on their economical and aesthetic benefits has been noted. Additionally, Green Building Certifications, such as the USGBC's LEED Rating System, promote the use of the green roofs when designing future developments. Nonetheless, there is still additional education needed targeting mainly financial institutions, but also with appraisers, architects, engineers, brokers and the public at large. This presentation looks at the trends noted in the real estate market and examines the obstacles, which lie ahead for further implementation of green roofs in Puerto Rico.*

#### ***By Juan Carlos de Jesus, SRA***

Juan C. De Jesús is a SRA designated member of the Appraisal Institute and a Certified General Real Estate Appraiser in the Island of Puerto Rico. He has occupied the Secretary and is the current Vice President of the Puerto Rico and Caribbean Chapter of the Appraisal Institute. He was the first appraiser to become a member of the Caribbean Chapter of the US Green Building Council and is currently a Board of Directors member as part of the lobbying committee. Mr. De Jesús is also a member of the Construction Cluster, sponsored by the local "Asociación de Industriales", due to his knowledge in the area of green building valuation. He has presented in various forums with local government, banking and real estate associations. During the past four years he has formed part of the Leadership Development Advisory Council, sponsored by the Appraisal Institute and held in Washington DC, and lobbied in both the House and Senate for reforms on laws governing appraisers and financial institutions. This past may he met up with the resident commissioner's office to discuss the benefits of green buildings. He currently works in the appraisal firm of Vallejo & Vallejo, one of the most recognized firms in the island.

### **2. Green Roofs in LEED Point's Interpretation**

*The LEED Certification is the most respected certification in the USA for green building development. It has called the attention of the local government implementing it in public buildings and certain areas as the Convention Center District. Green Roofs are addressed in many aspects of the LEED Certification*

*from reducing the heat island effect to absorbing pollutants from the stormwater and rehabilitating habitats. This knowledge will guide architects and developers implement green roofs in a way that could contribute to the LEED certification of their projects.*

***By Arch. Vincent J. Pieri, LEED AP, AIA***

Vincent is an architect whose sole focus is the integration of green and sustainable strategies into the built environment at every level through design excellence and the application of sound project management principles. He is committed the green building movement in Puerto Rico and the Caribbean. Born in St. Louis Missouri, Vincent has lived in Puerto Rico since 1988. He currently practices as the principal of Pieri + Associates Architects, an architecture, project management and green design consultancy based in San Juan, Puerto Rico. Established in 2003, Pieri + Associates Architects is dedicated to enabling developers, facility owners, architects, engineers and contractors better understand adopt successful eco-effective strategies by providing creative interdisciplinary technical support from early-stage integrative design efforts and validation metrics throughout the project design, construction and start-up phases.

**3. Green Roofs Benefits**

*With the green roof industry continuing to develop in the United States marketplace, it's important that we stress all the options available on the roof. After all, the options are plenty and there is plenty of roof space on which to work, and more importantly, plenty of roof space on which to imagine the possibilities. As green roof system supplier, architects, landscape architects, landscape contractors, roofers, sustainable building professionals and simply green roof enthusiasts, we have worked hard to educate the populace on green roofs. Naturally, that education began with extensive green roofs: lightweight, low-maintenance, and low-lying. Extensive green roofs are the easiest to explain, the easiest to install, and certainly the best way to get the ball rolling toward the vision of green roofs as a widely accepted technology used in every nook and cranny and rooftop of the country. We have done and continue to do a great job talking about the environmental and economic benefits of green roofs with storm water management and the mitigation of the urban heat island effect; the economic advantages of energy saving and the extension of the life-cycle of the waterproofing membrane; increased bio-diversity; noise reduction; reduced smog and dust levels and so on. Certainly, with many of the challenges facing our planet and the global economy today, green roofs will help. As such, green roofs are in an excellent position to be at the forefront, indeed the leader of sustainable building technologies seek to make our lives and the lives of our building better.*

**By Nicholas Smith, Account Manager Zinco USA**

Nicholas is sales manager for the U.S. based affiliate of ZinCo GmbH since 2008. ZinCo has manufactured and sold green roof systems for various residential and commercial applications in 17 countries worldwide. Nicholas has worked in conjunction with David Aponte, the local supplier and installer of Zinco, and the product has been used in various residential and commercial projects such as Caribe Plaza and Plaza del Mercado in Bayamon. Nicholas provides education in green roof applications and benefits for all interested professionals in the construction industry.

**4. A political and technical guideline to Green Roofs**

*Green Roofs have become a very important component of sustainable urban development within the last 30 years. At present, Green Roofs can be found in nearly all big cities around the world, benefiting the urban environment and their inhabitants. In order to guarantee lasting function, extensive Green Roofs, simple intensive greening and intensive Green Roofs are all based on the same principles: high quality materials, professional planning and installation, state of the art technology and acknowledged guidelines. An international exchange of ideas, technologies and policies within the Green Roof sector, therefore, is not only desirable, but simply a necessity with regard to efficient environmental strategies. The International Green Roof Association (IGRA) offers the platform for the worldwide promotion and dissemination of ecological Green Roof ideas. The IGRA presentation will feature the key factors for the successful "Green Roof Story" in Europe with special consideration of the situation in Germany.*

**By Wolfgang Ansel, International Green Roof Association (IGRA), Berlin**

Refer to Curriculum Vitae at end of Synopsis.

**5. Green Roof role in Local Environmental Regulations**

*Green roofs in Puerto Rico have been a growing trend in past years. In local market the aesthetical value has been the decided factor over conventional Black roofs. This presentation explores other alternative that promotes the use of green roofs for environmental mitigation and regulation compliance. The data exposed will help promote a higher use of green roofs in new or retrofit projects in Puerto Rico.*

**By David Aponte, GRP, PR Green Design**

David is a local green roof installer and green roof educator compromised in promoting and instructing on the green roof benefits. Founder of PR Green Design, green roof installation and exclusive provider of Zinco products, David has been able to start changing the perception on green roofs. His expertise has grown since his thesis project on green roofs

were he proved interior temperature is highly reduced by the installation of a green roof, also as a green roof installer he understands the intricacies of installing a green roof in the diverse microclimates of our island.

## CURRICULUM VITAE

### PERSONAL INFORMATION

Family Name

First Name

Address

Nationality

Date of birth

Place of birth

Family status

**ANSEL**

**WOLFGANG**

International Green Roof Association

-IGRA-

PO Box 880127

13107 Berlin

Germany

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email: [ansel@igra-world.com](mailto:ansel@igra-world.com)

German

03.12.1965

Stuttgart (Germany)

Single, two children



### WORK EXPERIENCE

**2004 onwards**

Mission

Director of the International Green Roof Association (IGRA)

Worldwide promotion of the ecological Green Roof idea; International knowledge transfer in the field of Green Roofs, Green Roof Conferences

**2003**

Consultant

Biomonitoring and Evaluation, Echterdingen, Stuttgart

**1996-2002**

Research area

Research associate

University of Hohenheim, Departement for Landscape and Plant Ecology, Section Plant Ecology and Ecotoxicology, Stuttgart (Germany)

Air pollution effects on plants; development and implementation of bioassays and guidelines

1999-2002 LIFE-Project "EuroBionet - European Network for the Assessment of Air Quality by the Use of Bioindicator Plants" with participation of local governments, research institutes and schools from 12 cities in 8 EU Member States ([www.eurobionet.com](http://www.eurobionet.com))

### EDUCATION AND TRAINING

**2004**

Sideline postgraduate degree in economics

University of Hagen, Germany

Thesis: The Gothenburg Protocol on Transboundary Pollution in Europe: an Economic and Game theoretic Evaluation

**1996**

Diploma in Biology

University of Hohenheim, Germany

Thesis: Biomonitoring in the surroundings of a coal-burning powerplant in East Germany

## LANGUAGE SKILLS

Mother tongue  
Other languages

GERMAN  
ENGLISH (reading skills excellent, writing and verbal skills: good)

## ORGANISATIONAL SKILLS AND COMPETENCES

Project management  
Organisation of international meetings and conferences  
Compilation and publication of Green Roof manuals and guidelines  
Presentations and lectures  
Professional articles

## SELECTED PUBLICATIONS:

### **Appl, R. & Ansel W. (2009):**

Green Roofs – Bringing Nature Back to Town, Proceedings – International Green Roof Congress 2009, IGRA, Berlin, 183 pp

### **Ansel, W. (2008):**

Green roofs – The German Perspective. In: Proceedings – World Green Roof Congress 2008, livingroofs, London

### **Ansel, W. (2007):**

Basic technical issues for Green Roofs, German Roof Gardener Association, Nürtingen, 36 pp (in German)

### **Ansel, W. (2005):**

Guideline to Green Roofs - Green Roofs 101, German Roof Gardener Association, Nürtingen, 52 pp (in German)

### **IGRA (2004):**

International Green Roof Congress 14-15 September 2004; Proceedings, IGRA, Berlin, 176 pp

### **Appl, R. & Ansel W. (2004):**

Future Oriented and Sustainable Green Roofs in Germany. In: Proceedings of the Greening Rooftops for Sustainable Communities Symposium. Hosted by: Green Roofs for Healthy Cities and City of Portland, Oregon, 02-04 June 2004.

### **Ansel, W., Klumpp, A. & Klumpp, G. (2004):**

Public relations in the EuroBionet project: theory and practice. In: Klumpp, A., Ansel, W. & Klumpp, G. (eds.): Urban Air Pollution, Bioindication and Environmental Awareness. Cuvillier Verlag, Göttingen, 175-183.

### **Klumpp, A., Ansel, W. & Klumpp, G. (2004):**

Urban Air Pollution, Bioindication and Environmental Awareness. Cuvillier Verlag, Göttingen, 392 pp

### **Klumpp, A., Klumpp, G. & Ansel, W. (2003):**

EuroBionet: standardised methods for biomonitoring air quality in European cities. Environews 9, 4-6

### **Klumpp, A., Fomin, A., Klumpp, G. & Ansel, W. (2002):**

Bioindication and Air Quality in European Cities – Research, Application, Communication. Heimbach Verlag, Stuttgart, 295 S

### **Klumpp, A., Ansel, W., Klumpp, G., Belluzzo, N., Calatayud, V., Chaplin, N., Garrec, J.P., Gutsche, H.-J., Hayes, M., Hentze, H.-W., Kambezidis, H., Laurent, O., Peñuelas, J., Rasmussen, S., Ribas, A., Ro-Poulsen, H., Rossi, S., Sanz, M.J., Shang, H., Sifakis, N. & Vergne, P. (2002):**

EuroBionet: A Pan-European biomonitoring network for urban air quality assessment. Environmental Science & Pollution Research 9: 199-203.

## **SELECTED PRESENTATIONS:**

### **Waterproofmembranes 2009**

Düsseldorf / Germany

Title: "Up on the roof" – increasing the living and environmental quality with green roofs"

### **International Green Roof Congress 2009**

Nürtingen / Germany

Title: "Green roof incentives in Germany – proven procedures and current trends"

### **World Green Roof Congress 2008**

London / United Kingdom

Title: "Green roofs – the German perspective"

### **Skyrise Greenery Seminar 2008**

Singapore

Titles: "A European perspective of skyrise greenery and latest developments"

"A tale of 3 (+3) cities: comparative analysis of green roof policies and success factors"

### **Ecological Greenness Management & Roof Gardens 2008**

Boxtel / Netherlands

Title: "Green roofs outside Holland"

### **Green is Life 2008**

Warsaw / Poland

Title: "A political and technical guideline to green roofs"

### **45<sup>th</sup> International Federation of Landscape architects (IFLA) World Congress 2008**

Apeldoorn / Netherlands

Title: "Natural stormwater management with green roofs"

### **Asia – Pacific Weeks 2007**

Berlin / Germany

Title: "Nature shows the way – energy savings with green roofs"

### **Eco Buildings Conference 2007 and Seminar National Parks Board**

Singapore

Titles: "Common pitfalls, failures, and errors of green roof installation and how to avoid them"

"A political and technical guideline to green roofs"

### **Green Roofs for Healthy Cities 2004**

Portland / USA

Titles: "Future oriented and sustainable green roofs in Germany"

"Key factors in successful green roof training"