

ON THE ROOF WITH...

A GLIMPSE OF THE FUTURE OF ROOFING

INTERVIEW BY STEVEN PECK, GRP, HONORARY ASLA

Over the last two decades, the roofing industry has undergone some major changes, one of which is a growing recognition of the value of roof space other than keeping occupants warm and dry. Two veteran roofing professionals share their thoughts on the changes that have been, and where they see the industry heading in this ‘black arts’ segment of On The Roof With... John Robinson, Sika Sarnafil and Ed Jarger, American Hydrotech.

LAM: *In your opinion, what do you think has been the most significant change to the roofing industry over the last two decades?*

John Robinson (JR): The most significant change has been emergence of the single ply roof system as the most predominant system. Built up Roofing (BUR) and hot asphalt systems are losing market share due to environmental issues, cost factors and labor concerns. The combination of installation speed and efficiency and the movement away from high labor-based systems has accelerated the change. This will continue as manufacturers develop systems that are more labor efficient and more environmentally sensitive. Another more negative change has been the practice of accepting lower cost materials and systems versus

performance, so called “value engineering”. This has led to more premature failures in all types of roofing systems.

Edward Jarger (EJ): There has been a marked shift in how roofs are viewed by building owners and developers over the last 20 years. Besides its primary function, to keeping water out of a building, the rooftop is increasingly expected to provide more value and functionality. A roof may become a building amenity, such as a podium deck or rooftop terrace for tenants to enjoy. Or, perhaps assist in handling the stormwater challenges many urban areas must contend with by incorporating a vegetated roof or even a blue roof assembly in the overall roof design. Resistance or concern regarding a roofs ability to

perform multiple functions has given way to acceptance over the last few decades, as good roof design and the use of quality roofing products and assemblies have proven successful.

LAM: *Has the design community started to pay more attention to the new technologies for roofs, like green roofs, reflective roofs, natural lighting systems and solar panels etc.? Have roofs become more prominent in their thinking?*

EJ: The design community is certainly paying more attention to new roof technologies. They are being asked to do more with the rooftop than ever before by building owners and developers, mainly because of the economics. Whether it's to maximize energy savings, meet municipal stormwater requirements or to provide useable amenity



GREEN ROOFS, SOLAR AND REFLECTIVE ROOFS WILL CONTINUE TO GAIN MARKET SHARE

Photo courtesy of Green Roof Science

space (which can increase occupancy rates and values), they continue to explore what is possible. Architects understand that they must keep current with these technologies to compete and deliver a sound, functional building for their client.

JR: There has been an increased emphasis on more environmentally sensitive systems in the design community. The use of high Solar Reflective Index (SRI) roof systems has become predominant in the southern climates. There is a greater emphasis on products with recycled content and products that are recyclable. The emergence of the USGBC's LEED and other green building rating systems have led to more use of lower Volatile Organic Compound systems and less use of hot asphalt-based systems. Green roofs and solar roof systems are more prevalent in areas where local code requirements and /or incentives are in place. Roofs have become more prominent in the design process when there is a green or solar roof in the project or the roof will be used as an amenity space.

LAM: *Which of these 'green' technologies listed above is likely to grow significantly in market share over the next decade and why?*

JR: I believe that all of the technologies will continue to grow in market share and

the rate will be based on local conditions and demands. Green roofs will continue to increase in urban areas with storm water and heat island issues. High SRI roofs have become almost standard in hotter climates and solar roofs will increase in areas that have incentives and/or high utility rates.

EJ: With respect to the vegetated roof market I believe the market growth potential has a huge upside, mainly because vegetated roofs offer not just one or two benefits like the other technologies, but because they can provide upwards of a dozen; be they technical, environmental and/or economic. Therefore, regardless of the specific vegetated roof design intent there are many benefits that will likely resonate with building owners resulting in even greater acceptance in the years ahead.

LAM: *Have manufacturer warranties changed in response to the use of new roofing technologies and if so how?*

EJ: Manufacturer or supplier warranties are intended to provide assurance to a building owner that the products or assemblies they purchase (new technologies or existing) will perform as intended. A warranty is only as good as the company that stands behind it, so it's advisable to work with an established and trusted company.

JR: Manufacturers have changed warranties significantly to meet the market demands. Full system warranties that include green and pedestrian overburden are now common. Some include overburden removal with limitations. Many now require electronic leak detection systems as a condition for these warranties. (See LAM, Vol 20. No. 2) Some manufacturers are now offering up to 30 year warranties on conventional roofing systems. Manufacturers are also partnering with solar companies to provide comprehensive warranties on these systems.

LAM: *Are labor shortages going to be a big issue in the roofing industry and if so, what top of mind can be done about it?*

JR: Labor shortages will continue to be a major issue that will become more critical in the future. The trend toward roofing systems that require less labor and skill in the installation will continue to grow to combat this issue. Innovations in green overburden installation technologies will continue to meet the demands for more efficient and less labor-intensive installations. Manufacturers will also need to provide more in-house training and field supervision to ensure proper installation methods are utilized.

THE EXPERTS



Edward Jarger joined American Hydrotech in 1981. Ed has held various technical and sales positions over the years. Since 2008, Ed has been Hydrotech's General Sales & Marketing Manager, responsible for communicating and implementing the firm's sales strategies. Prior to joining Hydrotech he worked for the architectural firm of Skidmore, Owings and Merrill in Chicago.



John S. Robinson, CSI/CDT,GRP, RRO has been with Sika Sarnafil for over 20 years and in the roofing industry for more than 35. He currently holds the position of Education/Healthcare/Waterproofing Sales Specialist for the Southern Region and serves on the board of directors of Green Roofs for Healthy Cities.

"WITH RESPECT TO THE VEGETATED ROOF MARKET I BELIEVE THE MARKET GROWTH POTENTIAL HAS A HUGE UPSIDE, MAINLY BECAUSE VEGETATED ROOFS OFFER NOT JUST ONE OR TWO BENEFITS LIKE THE OTHER TECHNOLOGIES, BUT BECAUSE THEY CAN PROVIDE UPWARDS OF A DOZEN"

- ED JARGER

EJ: Labor shortages in the construction field have been a concern for some time now. Short term this may continue to be a problem. However, long term I believe the solution requires actively attracting young people to the trades, to become carpenters, plumbers, electricians and roofers too. Learning a skill and working in the trades is a respectable job that has typically paid well. We need to find ways to attract those that may be looking for a career path that doesn't include college.

LAM: *In your opinion, what are the most important new developments in roofing likely to be over the next decade?*

EJ: The most important new developments in roofing over the next decade are on my desk right now...he says with a smile. I believe within the vegetated roof market there is ample opportunity for innovation. There is always a market for something better, simpler, easier or faster. For example, in a typical extensive vegetative roof assembly, individual plant plugs have largely given way to pre-grown carpet or tile (like sod). This option provides a relatively "instant green" vegetated roof

assembly that is easier and faster to install. Anything that can bring the overall cost down and maintain or improve the quality of the roof assembly is a win. This is the kind of innovation I expect we'll see more of in the future.

JR: The most important new development will be driven by the continued labor shortage issue and the need for more environmentally sensitive systems. Manufacturers will have to continue to develop systems and installation techniques that require less in field labor. Systems that offer a longer life cycle with lower maintenance requirements will also be in demand. Electronic leak detection and monitoring systems will become more commonplace in all types of roofing systems. The use of rooftops for solar, green, and storm water management will continue to increase as will the demand for amenity spaces. This will also increase the demand for high quality long life cycle roof systems that require less labor during installation and less maintenance throughout the service life.



Etera | You design it, we can grow it.
The green in green roof

Our experts can help you choose the right plants for every installation.

- Etera® SEDUM TILE® Mats
- Sedum and Perennial Plugs
- Bulk Sedum Cuttings

We specialize in Sedum Tile® mats and perennials with a proven track record in green roof applications. Call us today.

877-694-7613 • sales@etera.com
www.etera.com

