



GEORGE STOCKTON + DREW WENSLEY
IN CONVERSATION WITH JEAN TROTTIER

IF YOU BUILD IT....THEY WILL COME

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JT: When you began the Wadi Hanifah project you admitted feeling like medieval cathedral builders that never lived to see the end of their work. Why?

DW: Right from the beginning we knew that this project was about future generations and would outlive us. I remember watching children playing with what was close to raw sewage and thinking: “We have to fix this so these children can play in clean water.” This project starts with them so that they can teach their children the importance of the Wadi Hanifah.

GS: The wadi has always sustained human life, probably back to 20,000 plus years. But it had been so heavily damaged that it had a very uncertain future. What we wanted to do fundamentally was to bring it back to life so that it would continue to provide opportunities, as it has for thousands of years, to the people living along it.

JT: How do you sustain such a long process?

GS: Right from the beginning everybody knew that the master plan was just the ‘foyer’ of the real project, which was implementing it. Once we started with the enhancements the client knew that they had to deliver this thing. Even while we were under construction we had D9s and big piles of dirt and, right next over, families spread out and having picnics by the water features we were creating. Now tens of thousands of people come every weekend. They are spreading the word.

DW: When you open a project to the public you sort of hold your breath and say: “Well, now that we’ve built it, will they come [laughter]?” But there they were: the kids were playing, families were interacting in a way that they are seldom doing in Riyadh because it is such a walled-off, gated city. It was overwhelming. [...] We knew



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that once people embraced it and made it their own there would be no turning back. [In fact] at some point our client told us: “You did such a good job with the restoration that people will forget what the wadi looked like.” His fear was that we would actually revert to the horror show that was the wadi before. So we developed an educational and interpretative component.

GS: When we started the wadi was literally not on the maps. Now the ADA [Arriyadh Development Authority] is putting the wadi in shopping malls. There are school projects on the wadi. There is an education layer that is really important because it is the young people that will take this over. We have to show them something that goes beyond the technological world that they live in. And they are receptive. It is part of that teasing apart of the closed Saudi society: to show people that you can get out there, enjoy yourself, participate and contribute. And that is an accomplishment in itself.

JT: So, the project actually changed how residents of Riyadh socialize?

GS: Absolutely. Because people are used to living in their little air-conditioned boxes, either at home or in their cars [...] they’ve probably lost the instinct [...] of living socially, culturally and in a more open communal way. This is something we are trying to redress. There is very little open space in Riyadh and this project really is a major catalyst for public use. It unquestionably broadens out the level of social interaction. We have families and single people – who never mix traditionally – out there having fun throwing Frisbees, barbecuing, just enjoying the out of doors. That is a kind of subtle social, cultural success.

DW: It wasn’t lost on our client that this was a restoration project for the environment but also a kind of social experiment. They are thrilled with the results.

JT: Is that reflected in the city’s development practices?

DW: In the 1970s, 80s and 90s the city had turned its back on the wadi because it was such a cesspool of contaminants. This project has turned the city around...

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We were very cautious in our time schedule. We thought we would need to calibrate the system for a year. But about one month in George and I would go to the monitoring lab and all our technicians would come out to us and say: "It's working!" We'd reply: "Well, it's nature, of course it's working," and then go in the back and say: "Thank God."

GS: ... For example, in the central Al Uraija area, which is one of the poorest, they're now turning the developments, which used to be back to the wadi, front to wadi, to capitalize on this amenity...

DW: ... And the property values along the 120km on either sides of the wadi have increased tenfold.

JT: Saudi Arabia's neighbour, the emirate of Abu Dhabi, hired Vancouver planner Larry Beasley to develop its urban master plan. It also commissioned Foster+Partners to plan the world's first zero-carbon city. Is there an urban renaissance taking root in the Middle East?

GS: An Arab Urbanism Spring? Yes. Every country has something going on. Water is a major issue. Energy is a major issue. [...] We've spent the last two-plus years working on a major environmental plan for Mecca and we are hopefully about to start a Wadi Hanifa-like project in Medina. [...] We're working on a new sustainable city right outside of Riyadh [that] strives to strike a whole new

set of relationships in terms of people, the climate, microclimate, bio-diversity, naturalization. All of those ideas that we started thinking about in Wadi Hanifah we are now applying at a city scale. We are even looking at water capture for offsetting some of the potable water demands. This is literally a no-holds barred, state-sponsored city to do research on sustainable design and urbanism so that they can redirect what happens in the Kingdom. It's very bold.

JT: The citation for the Aga Khan Award commended the project for "eloquently [demonstrating] an alternative ecological way of urban development." I understand that the bio-remediation of urban wastewater has generated quite a lot of interest, especially from cities in developing countries?

DW: In 2004, we were invited into Lithuania by a development network that was hosting a forum for mayors. We were talking about the same issues: water, urban design, and how cities will be evolving in the future [...] They wanted to know as much as possible so that they could steer their communities in a way that would leapfrog the problems that we've all endured.

Here we are, actually learning so much in the Middle East, and now talking about this in a former Soviet country. [...] As a result of the attention Wadi Hanifa has received, we also hope to be soon engaged in Jordan's Zarqa river basin, which has a catchment of about 3,900 km² and issues similar to the ones found in Wadi Hanifah in 2001. We're seeing similar opportunities in Northern Africa and China.

I just don't know how to service projects in China and the Middle East from Toronto, but I'd love that challenge [laughter]. We are very keen to share with the world what we have learned working on this project over the last ten years. We've been to the UN a couple of times to present our experience in Riyadh with bio-remediation. It's happening globally. Developing nations all need this technology or this approach. It's very critical to avoid the mistakes that countries have made over the past few decades, and jump forward. There's a tremendous opportunity there.

GS: What we've done, because it affects people's health, their communities, their environment, has applications in so many places. I don't think we could have done a Wadi Hanifah on the Don River Valley because of the political process here. But if you have real needs, and probably a top-down political will to make improvements...

The Middle East is a very interesting place to work because they have crushing problems that affect people's lives and it's pretty simple to help them out. [...] Nothing we did was very complex or highly technological. It was all, as they call it here, low tech/high thought. It's a whole series of pragmatic designs that could be applied in India, China, Australia, anywhere.

DW: And it's scalable. What we've done with bio-remediation and the polishing of urban wastewater we're doing at a very large scale in Saudi Arabia but we could do at any scale around the world. And it is a third of the price of a sewage treatment plant. [Such] environmental infrastructure will take over in the next decade.

GS: By the way, everything we did in Wadi Hanifah was built by Third World labour. There's nothing special about it. It's dirt simple in terms of construction. It's accessible to just about anybody who can build.

The bio-remediation facility was built by about one hundred Afghani workers in their sandals. And they achieved something that is a world landmark in terms of how well it works.

DW: George and I would be at the end of the shovels some days [laughter], working alongside these people. They understood what they were building. They were very proud of it.

GS: What we've managed to collectively achieve here is something that performs way better than a very high-tech and very expensive sewage treatment plant. And you get landscape out of it.

JT: So there's a potential for jumping a whole technological generation, the way wireless communication took over in developing countries?

GS: This is really at the center of the politics of ideas. We are providing a whole new level of ideas that are accessible to a heck of a lot of people around the world. It's the scale that we apply it to that is remarkable.

DW: It's challenging. But our client also challenged us. You can't do a project like this without a superior client. We kept on throwing ideas at them and they would say: "Okay, let's try it."

GS: Even our engineers told us: "How could you recommend bio-remediation at such a scale when there are no precedents?"

DW: It makes for very interesting meetings, I can tell you that! [laughter]

GS: The amazing thing is that if the science is right and the construction is reasonable you stand a really good chance of meeting your goal. Within two weeks after putting water in the bio-remediation facility the thing had started coming to life, way faster and more vigorously than we expected. [...] The tilapias were breeding after two weeks. It's actually quite remarkable. We've just finished a full biopsy of all organisms: the whole food chain is working.

DW: We were very cautious in our time schedule. We thought we would need to calibrate the system for a year. But about one month in George and I would go to the monitoring lab and all our technicians would come out to us and say: "It's working!" We'd reply: "Well, it's nature, of course it's working," and then go in the back and say: "Thank God."

JT: A review of the project in the *Globe and Mail* reminded me of John Todd's 'living systems' research on Prince Edward Island during the 1970s. And I thought: we've finally arrived, and it's Canadians that are doing it.

GS: So do you think Canadians are at the forefront of a lot of this kind of thinking and building?

JT: You're throwing my questions back at me [laughter]. Maybe our location in the geopolitics of the world makes us flexible and creative innovators? We just need to make sure that the big guy behind us does not grab the puck and run away with it.

GS: We also deal with distance in a totally different way. This country has to work despite the distances so that we kind of unthinkingly



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apply the same thing to working in the Middle East. It's a day flight away, so you just go there and talk turkey.

JT: George, you've argued that Canadian consultants have the skills and cultural sensibility to take on international work better than almost anybody else. Do you see that in your clients, this respect for Canadians consultants?

DW: If they give us a night to sleep and we are well rested, yes, absolutely [laughter]. This came across when our client said: "You guys are no longer consultants; you are part of our team, part of the ADA." I don't know that there are many firms or consultants out there that have that kind of connection with their clients.

JT: These days, it is common to see landscape architects working in civil engineering firms. But your primary partnership is with a renowned architectural firm. Does that distinguish your practice?

GS: Definitely. I've been here for a long time and the reason I stuck around was the attitude that Ray [Moriyama] and Ted [Teshima] had towards nature and the kind of broader view of what we were doing, including culture and society. This is probably the richest learning environment I have been in. This office has never been just an architectural practice. We've looked at long-term, large-scale issues and developed a way of thinking...Wadi Hanifah is just a natural outcome of this. I would hope that architectural firms who talk the talk can now start expanding what they are doing. The whole world needs a level of professional grit because of what we are facing in the next few decades. [...] Other environments that are perhaps more structured or focused in terms of how you practice professionally may not have the same scope.

This place is really open-ended. There are so many possibilities that can evolve from what we do in a legitimate professional way. The people that we work with in the studio respond to that. It's very challenging but we are all doing really interesting work - work that is exploratory, makes a difference in people's lives and pushes the boundaries of the profession.

DW: Ray and Ted built this place to embrace this kind of work. When you walk in this office and see the courtyard, the boardroom, you realize that this place was built to have ideas flow. That leads to projects like Wadi Hanifah. I really want to practice like that for the rest of my life. The [Wadi Hanifah] project on the wall looks quite comfortable here.