



# tribute



ARCHITECTURE AS A PERFORMING ART REMEMBERING ASHOK DHAWAN **IFTIKHAR-MULK CHISHTI** 

# environment,

ecology and biodiversity



THE WHOLESOME UNIVERSE MY GRANDFATHER'S HOMESTEAD GARDEN DEEPTHI C.B.



**URBAN WILDERNESS** CHANDIGARH'S LEISURE VALLEY RAJNISH WATTAS



WILDERNESS AT BAY! A FEW STORIES AMRITA KAUR SLATCH & SHAIKH MOHAMMED ESA

PLANTING AS AN ANCHOR DEEPA DIPAK



**URBAN SYMPHONY** URBSCAPES

VIEW FROM WITHIN WATER: RECHARGE AND REUSE GEETA WAHI DUA

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A JOURNEY IN THE OUTER AND INNER WORLD WANDERINGS AND PONDERINGS Review by MANALEE NANAVATI

**FROM HUMAN TO HUMANE** THE ARCHITECTURE **OF NOTHINGNESS** Review by RAJAT RAY

THE FIRST PRACTITIONER **OF LANDSCAPE URBANISM** PATRICK GEDDES IN INDIA Review by PRASHANTA BHAT

### architecture and landscape



ARCHITECTURE AS A LANDSCAPE EXPERIENCE **READING THROUGH** AN INDIAN WORLDVIEW **B. BAMALAKSHMI** & SURABHI SHINGAREY

# 2021





LANDSCAPE AND FAITH SHRINES OF RURAL RAJASTHAN HITESHREE DAS & ABHIJEET KARWA

# central asia



COMUNITY-BASED ECO-PLANNING IN HIGH DRY REGIONS THE UNEP **AFGHANISTAN MODEL** JON COE

#### seeing the unseen



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# افغانستان COMMUNITY-BASED ECO-PLANNING IN HIGH DRY REGIONS THE UNEP AFGHANISTAN MODEL

A special feature profiles work of United Nations Environment Programme UNEP [now nearly two decades old] in parts of Afghanistan, one of the most active conflict zones of the world. Various initiatives of the organization are geared towards sustainable natural resource management in a largely rural land with the objectives of improving the environmental health of the region and the social and economic status of the communities. Facilitated by a landscape architect, they include formulation of various resource management policies and executing demonstration projects to showcase climate and culture responsive interventions on selected sites for developing sustainable ways of engaging with nature for productive uses like agriculture, crops and forestation. These are also examples of a modern blending of old and new - modern GIS survey methods with walking surveys and maps drawn by village elders. Learning from local communities about their traditional practices and local wisdom and empowering them with new ideas and knowledge for envisioning a self reliant sustainable future is an integral part of the work.

*Jon Coe,* landscape architect who has been working as environment management and design consultant for UNEP in the country shares the strategy of the mission along with some of the works, both at policy and design levels in a two part series feature – *Context & Strategy*, and *Practical Applications*.





Environmental Protection Agency [NEPA]. While many members of the UNEP

team at international, national, and provincial levels contributed to and later

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations



supported the funding and implementation of this work, my main direction and collaboration came from Mr Andrew Scanlon, who became Afghanistan Country Director during this period. Our shared ethos of respect for traditional knowledge and community-based decision making [bottom-up programs with top-down support] and ecologically based, regenerative, restorative, and selfsufficient programs was fundamental to the work which followed. I found my work was to continuously suggest ideas and examples from my over fifty years of international project experience, while Andrew sorted and selected the most useful for the needs at hand based upon his organizational understanding of the vast UN and international donor system, while constantly linking ideas for multiple benefits at all levels.

Community-based programs like this are needed because semi-arid mountainous regions like Afghanistan face age old threats: earthquake, rockfall, avalanche, flood, and drought, now made worse by climate change. Remote villages are far from government help and must be able to look after themselves.

Landscape degradation from over grazing and fuel wood harvesting is caused by more recent over population and results in increased runoff, flooding and erosion. Loss of traditional knowledge is caused by movement to urban areas, and decades of conflict resulting in very large numbers of deaths and surviving refugees. These are presently at crisis levels and often are forced to settle in marginal, hazardous locations.

While challenges in these regions are considerable, they are not insurmountable. Afghan highland and range land communities always have survived by selfreliance. Most crop, livestock and craft work products are consumed locally. Survival depends upon deep knowledge of useful indigenous plants, as well

#### ABOVE LEFT |

The author describing the community planning process to a mountain village gathering in 2010. American winter tourism expert Ms Laura Ashley is shown with red scarf. I've hidden the face of my interpreter in this photo in fear of reprisals by Taliban fighters to local citizens for working with foreigners like the UN. Names of local photographers are with held for the same reason

ABOVE RIGHT |

Avalanches like this may close access roads for a month or more

as traditional crops such as wheat, potatoes, orchards, and livestock [plant and animal species originally domesticated in this or similar regions]. What could be more sustainable? Both fertile and hazardous locations were avoided when selecting building sites. Local construction materials were effectively used. Critical resources such as water and range land were managed collectively. While livelihoods are spare and difficult, people have a notable degree of autonomy and resilience.

Instead of a "big is better" approach, we proposed multiple interlinked small-scale selfmanaged programs based upon both local knowledge and examples found in other indigenous populations living in similar high dry environments. These technologies were blended with modern restorative philosophies and techniques such as permaculture.

#### Our work

Our work can be considered in two stages, the strategic and the practical. While it is important to remember that both areas are functionally inseparable, each stage informing the other, for this report I will focus on the strategic aspect and present examples of practical applications in the next issue.

Our strategic objectives were to:

- [1] Increase community resilience in a changing world by providing useful and easily accessible information
- [2] Provide both a "why to" and "how to" dimension to environmental policy documents for related ministries, community master plans and local field projects
- [3] Develop a practical framework for Ministry, UN and NGO staff and community leaders to plan and develop their own field projects
- [4] Assist field staff in communicating design intent and construction methods to local workers
- [5] Provide attractive and result-oriented frameworks for international funding.

The strategies we developed for community-based eco-planning had four main elements:

- [1] Supporting community-based natural resource management
- [2] Development of "proof of concept" test projects with rural communities and evaluating the results.
- [3] Teaching these strategies and practical methods to colleagues in related Afghan government departments at the federal, provincial, and community levels. These included NEPA, the Ministry of Agriculture, Irrigation, and Land [MAIL] and several other agencies to a lesser extent. The first applications were in Bamyan Province. Later these strategies were expanded to Kabul, Daikundi, Badakshan, Balk, and Nangarhar Provinces and collaborations organized with several international non-governmental aid groups. Implementation of these stage two programs was initiated during my period of involvement.



View looking north to the remains of the 1400-year-old Bamyan Buddhas [destroyed by the Taliban] along the ancient Silk Road with the Hindu Kush range beyond

central asia



View of Shah Foladi Mountain in the Koi Baba Range looking south from about the same location as the previous view. These are called "water tower mountains." Nearly all local water comes from upland snowmelt Two foundations of ecology are the twin principles: *everything is connected*, and *everything changes*. Development projects are too often undertaken in isolation. However, eco-planning strategy begins at the global level, understanding international and regional threats and opportunities, trends, resources, and legally binding agreements effecting local needs. These interact with national laws, policies, and priorities as well as natural, cultural, economic, and environmental resource and security conditions. National policies, programs, and resources are often implemented through provincial ministries and governor's offices and on to city governments, Community Development Councils and *Shuras* [elder's councils]. This flow should then be reversed with knowledge learned through monitoring and evaluation at each level affecting policy and programs at higher levels. Everything is connected. And if constant improvement of policies and outcomes are sought in a rapidly changing world, everything also changes.

Simply stated, our planning process was to develop a flexible chain of communication, understanding and action connecting all levels of stakeholders from international donors and government service providers to elders at the community level and back again.

#### **First steps**

The UNEP was requested by the General Secretary of NEPA to develop a management plan for a proposed Koi-Baba National Park in the mountains above Bamyan town in the central highlands. In 2009 I was recruited by Andrew Scanlon because I had worked under him in planning for Jiuzhaigou National Park in Sichuan, China and I had helped to plan national and nature parks in the US, Canada, and Brazil, as well as China. This was to be an IUCN category five "human landscapes" protected area incorporating existing villages and livelihoods. We began by developing an understanding of the larger landscape of the Bamyan River Valley and drainages between the Hindu Kush and Koi Baba [Grandfather] Mountains and of course the amazing cultural and natural history of the region.

However, in visiting many gateway villages to the proposed national park with our local Afghan guides it became clear that the most urgent need was to help these poor mountain communities along the 3000-meter elevation contour develop sustainable livelihoods while implementing climate change and disaster risk mitigation strategies. Our hope was to gradually build trust through supporting projects they wanted and needed before discussing ideas about potential alpine tourism, a concept largely foreign and potentially threatening to many. We also wanted to counter the common short-term gain and long-term frustration of the international development process in which foreign technicians insert foreign technology such as a mini-hydro power station, installed by outside specialists and then leave, providing almost no local jobs and no means of long-term maintenance or parts replacement. We also sought to avoid competing local demands and unrelated improvements through use of a shared and unifying planning process. It is my belief that participatory planning also strengthens a sense of agency among participants. Poor rural communities

the most urgent need was to help these poor mountain communities along the 3000-meter elevation contour develop sustainable livelihoods while implementing climate change and disaster risk mitigation strategies

after developing an understanding of the international, national and region context, our in-situ process began by inviting village delegates to prepare their own community master plan



may believe that the future is simply something that happens to them. Hopefully, the experience of a practical planning process followed by tangible, beneficial outcomes, will encourage the belief that their future is something they themselves can shape.

After developing an understanding of the international, national and region context, our in-situ process began by inviting village

delegates to prepare their own community master plan. The first step was to visit each community with our Afghan UNEP and NEPA advisors and translators who were already known and respected in the community. After sharing tea with community elders, we joined them in walking surveys. We would ask elders questions like, "What was the highest level this stream has flooded since your grandfathers time?" "Please show us where two of your village women were killed by an avalanche while collecting water three years ago." "If you were going to build a community reforestation and fruit tree nursery, where would you locate it and who would look after it?"

While walking the village openly with local children following, we dutifully marked aerial photos [good surveys were never available] helping the community themselves develop what landscape architects call "opportunity and constraint maps". While we later verified many of these environmental threats using the excellent Geographic Information System [GIS] facilities provided by UNEP colleagues in Europe, it was important to receive this information directly from the community because of the depth of knowledge they shared and because it demonstrated our respect for their agency. We also took many photos and I occasionally made sketches of important features of special scenic interest.



BIRD'S EYE VIEW OF SEPA LANDSCAPE

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#### ABOVE

Two examples of my early cartoons exploring the axial relationship of the culturally iconic Giant Buddhas and the visually, geologically, and ecologically iconic Shah Foladi Mountain in the proposed Koi Baba National Park. My second cartoon shows the river valleys connecting Banyan River to the high "gateway villages" providing eventual access to the proposed Koi Baba National Park. Our proposed alpine "Sky Trail" is shown in red



Female UNEP staff met with community women and, once trust was established, were able to survey information about their needs and aspirations as well as diet and nutrition, infant mortality, educational opportunities, women's crafts such as carpet making and other essential information.

After developing a shared understanding of the land and community, we convened planning workshops. These were sometimes held in Bamyan town on market days when community members were likely to come to town. There we treated them to a midday meal from the bazaar. The workshops had introductions, break-out groups with markers and flip charts, teams reporting back to the group, and summary sessions. These were exactly like planning workshops landscape architects hold in major world cities. Many community members were literate and recorded suggestions and findings, and discussions were lively and often eloquent.

The focus of the workshop was brainstorming what development and protection needs the community wanted. These were discussed and prioritized, and early action projects identified. Physical developments would be built by the community, sometimes with funding for local labour and materials provided through UNEP or other agencies and fully audited. Projects were to be sustainable using traditional designs, materials, and labour. Supporting ecologically based notions included working with rather than against stream dynamics, returning

#### ABOVE |

#### KOH-E-BABA INTEGRATED WATERSHED AND PROTECTED AREAS MASTER PLANNING PROCESS

This overall schedule outlines our many combined NEPA and UNEP planning and implementation initiatives in Bamyan Valley within which local eco-tech projects and programs were managed



#### ABOVE |

A sketch made by the author recording a highly scenic natural gateway to an especially beautiful upper valley area

#### RIGHT |

Some village participants drew maps of their community and upland grazing lands. Their interpretation of scale was based upon walking time rather than physical distance, so these maps did not correlate to the spatial scale of aerial photographs or GIS maps. They record a deep understanding of their lands as seen by the communities themselves



dangerous flooding surface water to safe dependable underground flow and suggesting installation of hundreds of small, easily repaired check dams rather than single large, ridged structures of high embedded energy imported materials. Regenerative programs such as riparian tree plantings would provide lumber for construction and sale and cooking fuel and would help to stabilize stream banks. Eventually these native poplars and willows would reseed gallery forests along the entire downstream watercourse. Programs such as training in orchard management or food preserving would be taught by Afghan experts provided by local government agencies or universities. We developed an extensive catalogue of what we called "ecotech" design ideas, many based upon centuries old regional practice which also helped reduce disaster risk and impact of predicted climate warming and drying. These will be the subject of next month's article.



Eventually nineteen communities in the Bamyan area developed their own unique master plans followed by many successful eco-tech-based improvements including community nurseries and improved livelihoods through reforestation of wood lots. I even observed some wildlife returning to the area.

Implementation Methods: NEPA and UNEP partnered in implementing these policies and practices through an integrated process, including on site training of ministry staff from national and provincial levels, implementing community-based landscape scale and village planning, Disaster Risk Reduction [Eco-DRR] construction, training, and mobilization initiatives. Climate Change Adaption [CCA] programs and projects included environmental and climate monitoring and publishing useful guides and training curricula were also successfully implemented. Very fortunately, the twin global concerns for CCA and DDR were well funded by foreign aid programs in countries like United Kingdom, Estonia, Finland, and Japan.

During my final year with this program, we returned to our first goal, completion of what began as the Koi Baba National Park Management Plan and resulted a year later in the 2017 dedication of the 2,700 square kilometre Shah Foladi National Protected Area.

It is important that such programs and projects be integrated within a larger planning framework to avoid conflicts and duplication and optimizing multiple benefits. Therefore, after successful starts and proof of concept in the nineteen Bamyan test villages, UNEP was requested to extend this program to five additional provinces, as shown in my illustration ahead. ABOVE | An active break-out brainstorming session after a delicious lunch



## What's next?

With the Afghan elected government gone and key departments like NEPA most likely disbanded, top-down support for community-based planning and ecotech regenerative programs will not continue. If the UN is invited back, it will only be to deliver urgent humanitarian aid. I know of some previous UNEP Afghan colleagues now fleeing Taliban death threats. National protected areas will no longer be protected, unless by local leaders. Many of the mountain communities we worked with are from the historically persecuted Hazara ethnic and religious minority. Will they receive promised protection from the new Taliban government or a return to the persecution visited upon them by the previous Taliban government? My hope is that the villages we worked with, and their observant neighbours, having benefited from their community-led and ecologically based accomplishments, will continue this work spontaneously, as needs and opportunities arise, building upon their deep strengths for hard toil, self-reliance, improvisation, and resilience.



#### ABOVE |

**UNEP Planning and Development** Process. Items 1-4 show information, knowledge, and resource flow from global to local. Items4-5 illustrate test cases in the Bamyan area. Based upon broad local acceptance 5-7 show the process extended to additional provinces. The information return loop is not shown in this diagram but involved evaluation of village level planning and development initiatives, reports and training session delivered to higher levels of national government, detailed reports to international donors and UNEP strategy documents published at the international level

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