

Kashmir

[Insight](#)
[Maps](#)

Kashmir Newz

[Pictures](#)
[Research](#)
[Translators](#)
[Video Production](#)
[Archives](#)
[Terms & Conditions](#)
[Guestbook](#)
[email](#)
[Disclaimer](#)

Unauthorised reproduction of pictures from this site is strictly prohibited. To buy pictures for publishing please contact [Kashmir Newz](#).

EXPERT TALK:

'Concerte houses make Kashmir vulnerable to Muzaffarabad type destruction in earthquake'

Srinagar, June 23, 2014:

Saleem Beg, Convenor of J&K Chapter of Indian National Trust For Art and Cultural Heritage and member of National Monuments Authority considers Kashmir's departure from its traditional housing architecture a great loss, and its replacement by concrete as a big danger. In an interview with CSE Fellow **Shahnawaz Khan** he about the evolution and demise of Kashmir's traditional architecture, and the loss and risks associated with its replacement.



Shahnawaz Khan: Kashmir is said to have had a very rich architectural legacy, which has almost replaced with new technologies. What were its features that made it so rich?

Saleem Beg: Architecture is an evolving process, an organic one. It is basically an essential response to a requirement at a particular time in a particular society. The first and foremost requirement of architecture was shelter, in its pristine form.

Kashmir has certain features which needed to be responded to through the medium of architecture, retaining the essential requirement of architecture that is shelter.

One requirement was that we had lot of fresh air in Kashmir which needed to be absorbed in buildings. We have light in Kashmir which needed to be absorbed in buildings. We have very cold climate in Kashmir therefore we had to develop materials and techniques which would somehow address the requirement of keeping houses warm.

Then the third, and the most important architectural response was that we were in an earthquake sensitive zone, - second most critical earthquake zone. These were inherent and basic requirements which had to be responded to in architecture.

So what they did was, weather-wise, climate-wise a few things evolved. One was that we had multiple small windows, so the air could come in and it could also be stopped.

Along with a winter we also had around eight months of pleasant



Find us on Facebook



Kashmir Newz

Like



Kashmir Newz

July 3, 2013

<http://kashmirnewz.com/f000118.html>

India has released a postage stamp featuring most famous pro-freedom poet of Kashmir, Mahjoor, who strongly detested Kashmir's accession with the country. Is it a goof up? Haroon Mirani reports

275 people like Kashmir Newz.



Facebook social plugin

Kashmir Newz Specials

Waiting in despair



More in Specials

[HRW report on Kashmir skips rapes](#)

[A virtual war of freedom in Kashmir](#)

[Guns under fire](#)

[Losing to tanneries](#)

[Honey in Peril](#)

[The art of Khatamand](#)

[Defying the threat](#)

[Behind the names of houseboats](#)

weather, so we had this concept of Dab (A wooden balcony). Dab was outside the main body of house. The purpose was to enjoy the air in summers. The purpose of multiple windows was to get more light, and they were small at the same time so cold could be stopped, when required. It was also a requirement of earthquake resistance in Taq and Frame structures. (Taq is a traditional column based structure with in-fills) Luckily for us we had an exposure to crafts, and so ornamentation also evolved, like papier machie on walls and ceilings, or carvings. It was an interaction of crafts on architecture.

So the point is that it was a long drawn process of evolution of architecture which flourished here until middle of 20th century.



An old Kashmiri four/five story house built in Taq system stands tall in the background of some new constructions in a Srinagar market

SK: And then we probably see a departure? What are the main reasons that led to the decline in its usage?

SB: Earlier, what we had in terms of technologies and technologists, was a traditional carpenter or a mason who had learned the craft from his father; and traditional material - locally made bricks, mud, locally available wood. Around five or six decades ago, we started getting people who were formally qualified – engineers, followed by architects. They were products of a different system. These people came with new technologies which they had learned in their institutions. Unfortunately, these engineers had a disconnect with their traditional technologies. So a kind of fractured view of technology came in. They thought in terms of steel, tresses, and concrete. Whatever they had learned they transplanted it here.

By that time cement as a binding material had caught up, and because of its quick setting and immediate quick strengths, they lost faith in the traditional material, forgetting that lime was known here for over thousand years, and we know that with every passing fifty years its (lime) strength doubles. It doesn't corrode, while cement does.

So the first tragedy was that the binding material got replaced. Then the traditional mud plaster which is a wonderful insulator and would stop both heat and cold was also replaced due to overuse of cement.

Gradually one after another traditional element was replaced. As a result, just over a period of 10 to 15 years, you had a completely different type of architecture which overlooked the essential requirements of the place.

It didn't allow them to understand why a building has evolved the way it

[The abode of pain](#)

[Housing the dead](#)

[Kashmir post 9/11](#)

[Kashmir separatists: Divided we stand](#)



has. They didn't look at it. They looked at the drawings they had learnt in the colleges.

SK: When you say colleges, you mean colleges in Kashmir or outside Kashmir?

SB: Everywhere, REC [Regional Engineering College] here is like REC in Chennai, there is no difference. Of course we as a country had to have a qualified workforce. But here the teaching methodologies had no connection with the past.

In the West along with new technology, another specialty also travelled, i.e conservation, restoration. Here we didn't think in those terms. And we thought conservation was required only in monuments.

Traditionally we had restoration techniques for houses too. In Kashmir we have seen we could even replace ground floors of houses while keeping the upper floors intact.

To my mind, it is the lack of knowledge, expertise and faith in traditional systems that led to the departure.

The other factor is that after 60 and 70's there were huge constructions going on in government sector, which had different specifications. But when you build a government school in a village it became a model for others. The influence of concrete came in.

So came in the outside workmen who again had no experience of local traditional technologies.

SK: But hasn't there been role of modern lifestyles in picking this up?

SB: Yes, when we talk of this departure, this is the time when countrywide we had exposure to materials that had better comfort level. Like we earlier used to have wood (as fuel) fed kitchens, now we had gas.

Similarly the supply of running water improved. In the beginning we had municipal taps, or taps outside the house, but with improvement of supplies water could be stored. Now this did not just change the kitchen, it changed the layout of the house.

Afterwards wet toilets, and flush toilets came in, and the things that were earlier outside the house now came inside. Obviously this was all possible because of new construction materials, new systems which allowed to incorporate things in the house that were incomprehensible earlier.

These living styles were possible because of new materials. But now we are slowly realizing that there are problems with what we are doing specially in terms of use of materials. Now people have started questioning layouts. We used to have closed houses, because of cold. Now we have open lounges which become unusable for at least four months of the year. Not only the lounge become unusable, it traps cold and distributes cold to other rooms. Our requirement is quite opposite to that. Our requirement is to have a style which keeps house warm. The style we have adopted is essentially keeping the house cold.



An old Kashmiri four house build in Taq system stands on the banks of Jehlum in Srinagar. Alongside new houses are coming up changing the face of the city.

SK: There are some who would say these houses are not good even for summers?

SB: As I said our traditional style had a very good insulation. So it was good for both cold and hot weather. Now with the overuse of cement it only transmits the outside temperature.

Earlier along with fired bricks in the house, we used to have inner layers of mud bricks. That is no longer in vogue. Again the walls were very thick, but with the use of fired bricks and cement there is value added to the material, so we are economizing on the wall thickness, increasing the vulnerability of the walls, and losing on insulation.

SK: Coming to earthquake resistance, RCC is also considered good enough world over. What is the problem in Kashmir?

SB: There is a general saying about earthquakes – Earthquakes don't kill, concrete kills. It is the concrete which causes most casualties in an earthquake. That is not to say we can't have earthquake resistant concrete structures. Of course it is a set of technology. Of course we can, but how many people are willing to make an investment of that kind. The truth is most people are not. Then there is another notion about concrete is that is it fire proof. We have an example of Dastgeer Sahib Shrine which gutted in 2011. It was a wooden structure, but there was also a passage built in concrete from one wing to another. That gave in even before the wooden structure. Then again while we could reclaim something of the timber elements, we could restore nothing from the concrete.

SK: But, obviously, concrete had this ability to limit damage in case of fire?

SB: Now it has been proved that it doesn't even limit the damage. It traps the heat.

SK: So you mean to say that concrete is not even fire proof?

SB: Of course. We don't have a three minute response time in case of a fire. We don't even have a ten minute response time. Wood is combustible and fire goes on, but concrete traps heat, and leads to more damage. And when we talk of damage, have you seen a concrete structure which had gutted and could be restored. In concrete 20

percent damage means 100 percent damage, in wood 50 percent damage means 50 percent damage.

SK: So when you advocate traditional system, is it the Taq or the frame system?

SB: First let us understand, we are not the only one who have traditional architecture, whole Europe has its traditional architecture.

We are not against using new techniques and new materials in the way these should be done. Even we at INTACH use new materials. There is no aversion, no prohibition. We are only talking of a compatible and sympathetic use of it.

In historic areas of Europe, one cannot even think of using materials that are not sympathetic or compatible to the original material. Just in London 60,000 structures are listed as heritage structures without the approval of authorities you can't change a window or even pass a nail. In Rome for the last 100 years not a single brick has been changed. That is respect for past. Now I am not saying a building has to be built the way it was built historically. No, but there should be a compatibility, a continuity; a symbiotic relationship should be there.

Architecture will of course keep evolving with time. So what we are saying is take essentials from these traditional houses and use them the way you want to use now.

SK: So what are these essentials, if we were to identify?

SB: As I said the essentials like of light elements, cold weather, windows. Why should you have lounges in your houses when it is of no use here.

SK: But cement as a binding material is something that cannot be replaced now?

SB: Unfortunately people here are not aware that mud has better resilience than cement. If a cement wall cracks at one point the whole wall goes down. Not the case with wall raised in mud.

We have to disabuse ourselves of certain notions, but the problem is it doesn't happen here.

Iron, steel, concrete, these are of course super materials, used for super structures. But the way, we use them here, even third story is a risk.

SK: Do you think people will be open to idea of using mud as mortar again?

SB: The problem here is people are overwhelmed with politics and conflict. Nothing else matters. In Muzaffarabad most destruction in the earthquake (2005) took place in concrete structures. In Mirpur a school collapsed, and 450 children died. It was a concrete structure.

Now if this had been a school in New York, it would not have collapsed. But we are not in New York. It is not the material, it is way you use the material that matters. So we cannot generalize.

SK: Have there been any studies on the energy efficiency of these houses viz a viz the old one in Kashmir?

SB: No, I haven't seen any studies, but we do have some understanding of it. Not only in terms of a finally built structure but cement in itself

consumes a lot of energy in its production.

Now you will say that timber availability is an issue. But the thing is that we have never thought of creating wood like we thought of creating cement. Don't forget cement is also using a lot of natural resource – limestone. It is 90 percent limestone.

And Kashmir is losing lot of it to cement. We have chemical grade limestone here. We can get super chemicals out of it, as and when we have technologies to do it, but we are using it as building material and wasting it for all times to come, by converting it to dirt (cement).

It is not just wood that is a natural resource, limestone also is a natural resource - except that it is rendered useless after its conversion to cement.

There is no concept of wood farming over here. We can farm wood, but we don't do that.

We can also economise on wood usage. Earlier people would use timber much more than required. We don't need that.

Besides if we look at it, Kashmiris still end up using more wood in houses, by wood paneling the walls and Khatamband ceilings. In fact we use so much wood nowadays that a full frame structure could be built with that.

SK: So, what would you prefer in Kashmir, Taq or Dhajji diwari?

SB: I think Kashmiris should go for Taq systems. It uses lesser timber than in Dhajji Diwari, and the walls are thicker.

SK: The cost of buildings is also an issue for people choosing RCC over wood. And using timber, like in ceilings and structures, is also kind of obsolete...

SB: The thing is that concrete houses are low cost here, because we are using sub-standard specifications, and that is the problem. Either people should go for proper specifications and material in RCC structures, or we should revert to traditional systems.

SK: So should these sub standard concrete structures be a cause of worry?

SB: People who are happy with using slabs (RCC ceilings) are at a greater risk of loss in event of an earthquake. Only those people who do it by standard specification would perhaps be secure. And how many people are doing it.

Ninety percent of the structures which have been done in Kashmir will face the same fate that Muzaffarbad structures faced in the event of, God forbid, an earthquake. So people shouldn't lay back and be happy that they are using cement. They should be scared, more scared. At least I am scared.

I know most of these colonies will be flattened in an earthquake and we will have to shift to old houses of Zaina Kadal, old houses of downtown. Don't be very happy that we are living in concrete.

SK: If it can prove to be such a calamity why isn't there any awareness on it?

SB: We have been talking about it. A lot of people have been talking about it. People (NGOS) have been conducting workshops, taking to

masons, carpenters etc. people write about it. But if people don't want to listen, what can anybody do about it.

I asked an expert from UN Habitat who had worked in Muzaffarabad, whether the understanding and awareness of earthquake resistant structures had crept in people. He said no.

Rohit Jigyasu, an Indian expert, gave a presentation about post quake constructions in Poonch, and said that the new structures built after the quake were much more vulnerable.

(This interview has been done under the aegis of CSE Media Fellowships 2014.)

feedback@kashmirnewz.com

[Explore](#)

[Explore](#)

© Kashmir Newz Communications
website designed & developed by Sumaira Gulzar webmaster@kashmirnewz.com

[Web Hosting Linux Reseller Hosting](#)