

Course Name: An Introduction To Urban Ecological Heritage: Theories and Applications

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EKW as Heritage – Lessons from a Practical Empirical Implementation Project - I

Hello everyone. Welcome to the second lecture on the Part-1 Practical Empirical Implementation Project of PEAP. So, in this lecture we will be discussing about the various methodological interventions that were introduced in this PEAP project on East Kolkata wetlands through its four phases. And how the new concept method or we saw methodological framework of ethno hyphen graphy was applied in the wetlands as part of this SMUS toolkit process. So, we left you know in the last lecture we left the conversation on understanding East Kolkata wetlands as a you know dynamic urban ecological heritage. So, the reason we were we had you know discussed on using the EKW as a case study for the project was to not only to make the people of Kolkata understand the importance of you know the wetlands to the city, but also to you know actually see and contextualize the perception regarding wetlands among her own inhabitants and local people on how they perceived this ecological heritage of the wetlands as a space.

Because we were very much willing to understand that the why is there a constant you know dichotomy this challenge increasing between the city people and the you know the people from the peri urban spaces. Why is there a constant difference of understanding and why are this you know sensitive spaces such as the East Kolkata wetlands. Ramsar recognized space constantly you know threatened by this checks by urbanization you know by bureaucratic practices. So, we need realize that we need to permeate this understand of urban ecological heritage in the you know firstly to the people of wetlands themselves.

And if through the application of the special methods they can enhance their own understanding and then teach the people of the city on how to you know respect and protect the place that has been helping in sustaining them. So, we were working with you know Disappearing Dialogues a creative collective on you know the selection of the young adult students from the wetland schools on whom we could train in this you know SMUS tool kit process. So, this is an illustration of the wetlands that was you know developed as part of this project. So, in this particular image you will see aerial you know sketch of the wetlands showing the multiplicities of the space. Here you will see you know the roads that are leading among the wetlands the ponds the greenery and at the same time the presence of you know natural and not natural elements as well.

So, what we had to do we realize that there are so many realities existing within the East Kolkata wetlands itself. We need to approach them and understand this reality through a very gradual and a very deeply rooted empirical process which were the four phases of PEIP data collection, analysis, practical empirical implementation and finally, the evaluation process. So, before beginning the PEIP project in the East Kolkata wetlands where we would be teaching the students the special methods we realized that we needed to orient the students first on what this project is actually about. Because after all they are the custodians of the place they are the you know the young minds who will be inheriting this ecological space and in order for EKW to survive they in future need to collaborate with the local community and the you know the city of Kolkata to make them understand that what they have learned from this project and how the people from wetlands see the wetlands and how they see the city and why this you know this gap between both of them should be reduced. So, we held you know orientation workshops with the students.

So, these the students we are talking about were selected from two schools from the East Kolkata wetlands from the almost the heart of the wetlands itself that is the Bamunghata high school and the Keaadaho high school. So, we selected around 16 students you know male and female and they all belong from classes of 8 and 9. So, the selection process of the students actually we had to depend a bit on The Creative Collective Disappearing Dialogues. Because they were you know an organization who had already been working in the wetlands for a long period of time they had been working very closely with the schools itself. They had been working you know in various engagement workshops where they would teach the students about the space they would take the students to various you know platforms in the city you know to make them gain knowledge and skills.

And DD you know often held various exhibition and you know practices where they got the opportunity to you know see and evaluate the artistic you know capabilities of the students you know themselves. So, it was so the first step was actually done in collaboration between the IIT Kharagpur team and the Disappearing Dialogue Creative Collective. Where this you know gave us a bunch of students around 16 students and we decided to orient them about the objectives of this project itself of what are the methods, why this methods are important. And we began by questioning them about the space itself like we started with the question that what do you know about the East Kolkata wetlands the place that you live in. Because we are the outsiders the IIT Kharagpur team does not live there we are just researching on it.

So, we held this workshops in there you know school classrooms only and as you can see in the pictures behind me students were raising their hand very you know with lot of motivation that I will tell you what this wetland is about what my home is about. So, they

would tell us about the lot of flora and fauna in this field about what they see from the windows of their homes and you know why this place is so important and everything. But something that came to you know our notice that during this orientation workshops us they had a pretty you know negative perception of how the city treats the wetlands as if the city was an antithesis to the existence of the wetlands. They believe that the city is the main threat you know to their home. So, we ask them that if they know how the wetland actually you know survives and we realize that even though they live you know in the very deep densely located homes within the wetlands beside the savage fed fisheries they have no idea where this sewage comes from.

How it was this you know system was created, who created this, what was the role of the colonial legacy in this creation of the wetlands. So, this orientation workshops actually broke the ice between the academic you know the academic team and the inhabitants of space. We both you know this both groups were learning about wetlands in a new perspective. We the academic team were learning about you know the grass root realities of the place about how the people are living beyond you know those technical knowledges of livelihoods and all everything. We were learning about the social cohesion that exist among people.

You know the non natural interactions you know that are going on in different parts of the wetlands and the people of the wetlands were learning a bit about the connections that exist in between the city and this natural ecological you know place. So, this actually helped us in establishing a rapport. And so as a next part of this you know orientation workshop we decided to take the students to another you know international workshop that was being held on at that point of time by the Max Muller Bhavan on perceiving the EKW as a critical zone. So, what are the concept of critical zone of you know particular specific spaces that are very important to the sustains of the you know earth ecological you know balance. Wetlands holds a very important part of it and in this workshop we were trying we exposed the students to this new perception on how actually the world perceives the wetlands.

So, in this particular you know workshop the first part of the workshop was held in the Indian museum the National Museum of India. And we were we had taken them to the exhibitions that were being held where lot of illustrations and you know PPT presentations lot of handmade you know craftsman things were done to make the local community on understand how the wetland is seen by people outside the wetland space. And we engaged in various you know role play theater you know roles where the students would take forms of the various non human components of the wetlands itself such as some would play the role of fish some would play the role of you know a plant that are important to the wetlands existence. And we would play out this is part of a learning a co-exchange exercise where both you know the academic team and the young adults were getting you know were

learning new knowledges about the space about the methods that are being applied to you know understand the space. And with that we went into the first phase of the PEIP project.

So, this is where we had started you know the applying we had started applying the use of this methods. So, what was this? So, the first part is the data collection phase. So, in the in this particular phase we realize that we cannot just tell the students that you have to conduct you interviews you have to conduct you know focus group discussion you observe people and write answers. These are methods that are being you know taught in very in courses of higher education it is being applied by people who are in their graduation in their masters and doctor doctoral and post doctorate researchers. Teaching this methods to this young students of class 8 and 9 might be very interesting, but it would be also challenging.

Because they are young kids they are very curious about they are curious to learn about new things, but if not taught properly the entire thing you know will fall out. So, what we did was we started organizing training sessions on making the students understand what ethnography actually is. So, what we did we would first of all we would tell them what these methods are and why these are applied. Then we started to tell them the application of this methods by giving them examples from our own research. Like in the IIT academic team there are lot of researchers like me and other researchers as well who are doing their you know doctoral works and you know masters works as well.

The way we apply this methods as our own in our own field works we started telling them that to them, but in a form of a story. So, we would teach them like the story telling perspective what if I am telling the students about you know an interaction that I had on field. I can tell you know the students that, but in a very engaging manner, but it was done through the method of a key informant interview. So, like I would teach them that and other researcher would tell them would show them a picture a photograph of something they had taken on the field and she or he would explain why that picture was taken what it signified. So, when we were teaching the students this you know this you know this methods and all we were a little bit apprehensive that whether are they understanding this methods and all, but we were so you know amazed by the response the students had.

After each session we would conduct a very you know a lesson you know reflection session that we had with them. We would ask them that what they learned and you know if they had any questions and these were very dynamic sessions. The students had very critical feedback regarding what we as doctoral students have done in our field they had very important feedback about them. They would ask us about why this particular method you know was applied in the field why not another method was applied and whether the data we collected was it actually appropriate, should not we have done something else to understand that why have not we applied the visualization techniques and all. So, it was a

very engaging understanding and we realized that this mode of dissemination through the story telling narrative of the different you know ethnographic techniques are actually helping the students.

They are understanding that how they can perceive the space and they are visualizing these concepts in their you know own mind on how they can be applied in their home. Then we had to come to the second part of the tool kit that is the visualization you know method. Whatever the students have learned they need to you know produce outputs for that through the you know visual methods how would they do that. These students belong to very marginalized communities from wetlands. They are living in spaces where there are often not though electricity they forget mobile internet connections.

So, how would they capture what they have learned. So, we developed you know a different you know tangible tool kit for them where we provided them some tools for data collection. We gave them some mobile phones. The 16 students were given you know mobile phones that would be used as recording devices for photography, videography and audio record whenever they are going to the field whenever they are conducting interviews etcetera. And they were given notebooks to take note of all what they have learned in the field on when or to form questionnaires to talk to the people to you know note down the important questions and all.

They were given pens and pencils and they were given sketchbooks because this is the forte of this young you know students. They are all excellent artists. So, we told them that a part of this project was their understanding of the space through a very interesting and engaging visual method. We told them that what after you know every you know field session what you would do is to draw whatever you you know understood from the space. So, this particular tool kit this we that we provided them consisted of these different equipments.

And with this we began the second part of the data collection process that is the field exposure trips. After we had conducted you know several ethnography sessions within the classrooms of the schools we decided them you know to take them to the field. And what is the field here because they are already inhabitants of the wetlands how what other you know concept of field they can understand. So, this was a we had a lot of debates around it, but then we realized that why not take them to the sewage fed fisheries itself you know the connection between the city of Kolkata and the EKW. So, we decided to take them to this you know multiple sewage fed fisheries from the ranging from the government to the cooperative fishery and to the private fishery.

So, for the government one we went to the Nalban fishery for cooperative it was you know the fisheries name was Borochaynabhi fishery. And for private we went to another fishery

called the Jhagrashisha fisheries. And they had their different interesting you know components of identity of structure of cohesion. But what we told the students when we went took them to the field exposure trips we initially we always went with them it would not to monitor them, but to guide them in case they needed any help. So, they started conducting transit works they would walk around in small groups and see the space.

And in that group like if a particular group had 4 or 5 students each would be they themselves had assigned themselves rules that one would be only mapping the space in their sketch book. Another would be only taking pictures and videos another would be taking you know conducting interviews. And the other person will be taking the notes of those interviews. And this was a very interesting process dynamic process students these students this young custodians of the space had so many questions. And we researchers even in this age when we go to the field we feel a lot of apprehension like whether we would be getting the right answers or not.

But we were amazed by the confidence possessed by the students. They were talking to big big you know bureaucratic officials from the state fishery without any hesitation they were asking the right questions. Because they are the people living in the space they are the people who are facing the problems you know posed by the urbanization. They are the ones who know the challenges that is being you know produced by the unequal distribution of waste water. So, they were asking those questions not in a I would say arrogant manner. But you know in a when young minds you know they start questioning things they sound very strong. So, they were very strong in gaining and obtaining that data from you know this various practitioners. So, in this particular data collection process we were seeing one practitioner of the space one group of practitioners the young mind questioning other practitioners. You know who are actually engaged in livelihood practices in the EKW. And this took us to the second phase of this project that is the analysis phase.

So, the data collection and the analysis you know phase actually went hand in hand. So, after each site visit we would conduct a reflection session with students. Because they are school students we know they already have a lot of pressure regarding you know their school curriculum and all. And it would be we cannot actually expect them to give all of all of their time. But the data they have collected the experience they have had in the field at that should be collected while it is you know in a fresh mind as well.

So, these reflection in this reflection visits we would sit with the students and we will ask them that what was your perception before you went here. What were the questions that you that you had in your mind that you wanted to ask and did you get the answers. What are the answers just tell me in a very short and summarized manner did you get you know expected answers or did you learn something new. So, through you know this very intense

you know reflection sessions we would under see and gauge whether this tool kit has actually helped the students in seeing the space in a very different manner.

And this would be followed by assignments. So, after each visit we would give the students an assignment that whatever you have understood from the field the ethnographic data that you have collected you know through this methods provide that to us in a very interesting visualization technique. It can be any visualization technique of their choice they can produce it through a photo essay, they can produce it through an illustration, they can produce it through a drawing, but they can it is up to them. So, this was the analysis part and the students came up you know with brilliant understandings here. You see in this you know there is a picture on the on the right side of the screen you will see this is actually a 3D cardboard model that the students had developed of one fishery in the wetland the Nalban fishery or the government fed fishery. So, this was actually the only fishery that they had never visited in because this is not this was you know not accessible to all.

So, the students in one of the as part of one of the assignments had developed this 3D model because they wanted to remember the space as they had visualized it as they had you know and then as they have walked around the lanes of it and how they had seen the periphery of Kolkata on the other side of the ponds. So, when they gave us this you know this 3D cardboard model we realized that the students have started to internalize the you know the concept or the motivation of the PEIP project and they are now starting to see their own space in a very different way and they by themselves are coming up with such innovative you know perceptions. So, we used we took this model to actually a small you know engagement workshop or like a symposium we had at the US consulate on climate change in the wetlands and we took this model with some of the school students and asked them to present this to you know the authorities there and there were students from some of the city schools there as well and our students from the Bamunghata and the Khedahoh high school confidently presented their findings with the use of this particular method. So, we realized that the first two phases of the PEIP had come out successfully. What we learnt about the space, what we taught to the students about the space and how the students are now seeing the space in a new manner have all came out successfully.

Now, the next step was to make the other practitioner of the space the very owners or the you know the managers of the space see if this you know this SMUS class or this SMUS toolkit applied by the students is actually effective or not which took us to the third phase that is the practical empirical implementation phase. So, this was a very crucial juncture of this project because the students needed to disseminate their understanding of the space to this local community practitioners. So, we held a local community practitioner workshop where we had invited all these bheri practitioners, the school teachers and some collaborators from you know institutes of educational importance, you know government

importance such as the fisheries institute and all and some NGOs to come and see what the students have learned about the space using this SMUS class method. And this was the first time the students were told to present their findings to their own people. This was a testing time for both of us for the academic team because if we had now you know left the methods in the hands of the students and also for the students themselves because they are using to you know they are providing their understandings to their own community.

Now, they only so this was a very interesting you know stage of the project as well. And the students started producing their understanding through you know very innovative drawings and sketches to the people to the practitioners of the space. And one of the major contributions you know of this entire process was their perception of not only the wetlands, but the city. As I told you in the beginning of the lecture that when we had started orienting them, we saw that they had a very negative perception of the city. They saw that they always called the city the threat that how the city is harming the wetlands, how the urbanization of the city is actually, how it is destroying the ecology of the space.

But now this is some very interesting thing happened. Now, we saw that the students were talking about that the city is actually helping the wetlands in sustaining itself. So, it showed a very interesting co-dependent relationship between the city and the wetlands. So, the EKW just how it is helping in sustaining the city, it is also the wastewater of the city that is helping the wetlands to survive. And this was a very you know important and pivotal moment for us in the PEIP project.

And we realized that this also touched the practitioners as well, because this was the moment they realized that they can leave their differences aside and come together and the city and the you know the local community has to work together in safeguarding the space through by forming a fraternity here on the sense. And this took us to the last part of the of the PEIP state as the evaluation stage, where we exhibited these findings from PEIP in a form of a exhibition. So, this was conducted in one of the city schools in Kolkata, where the students our from our students from wetlands were told to develop those ethno hyphen graphic outputs their understanding and present it to the to the students to this particular space. And they had developed very interesting modes of you know dissemination, they had developed cardboard models, they had developed you know long scroll paintings, they had you know started developing masks that showed why the non-human components you know of wetlands are also important in sustaining the space.

And they actually presented it through plays and all. So, a lot of things were going on in this exhibition. So, in one of the plays actually this recreated the interview scenes that they had done from the field. And in other plays they would play the role of you know the various non-human components such as a fish or a jack hill or a bird and some would play

the role of pollutants themselves on how they are affecting the wetlands and how it should be changed. So, finally, I will end this lecture with these two particular outputs. That is on the left side you see a hand-drawn painting it is a Potochitro painting.

So, Potochitro is actually part of Bengal's indigenous art itself. In this painting you see a lot of human and non-human aspects you know going on. So, the main component, the main narrator of this Potochitro is the you know this bacteria that is moving around you know that green bacterial formation. And it shows that without the presence of that bacterial component that comes through the wastewater of the city, none of you know this equation would not have survived. Not the flora, not the fauna, the city would have been different, the wetlands we do not know if would have existed, but not in the way we have you are seeing today.

So, in this Potochitro the students tried to depict this human and non-human equations and why we need to focus on solidifying this connections that are existing between Kolkata and EKW. They also developed on the right side of the you know slide you see a 3D model of the EKW that they tried to integrate the components of an urban city with the naturalness of you know EKW. And show that how the East Kolkata wetlands is not a separate you know distinct feature, but a co-evolved space and is part of Kolkata's heritage her natural ecological heritage. And through this understanding of ethno hyphen graphy to where we have applied the PEIP you know project this understandings we must safeguard this crucial space in future. Thank you.