Archeology and memory of trees

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The passion to learn something new and explore unknown paths has always been like a hidden obsession. For this reason, I have a relatively better understanding of many areas that have not been learned under any regular teaching. For the same reasons, most people object to what your expertise is in this field. Although I do not claim expertise in any field because I know how comprehensive the term ‘expertise’ is and how difficult it is to be an ‘expert’; at the level of awareness, a person can get better knowledge of many sciences.

During the last one year, one of the most interesting and beautiful awareness about many new sciences is about the "memory of trees".

My interest, commitment and better understanding of archaeology and climate change have been there for a long time. These days, a new branch of experimental science directly associated with the topics of archaeology preserved in the layers of trees known as ‘Dendroarchaeology’. The chronological account of natural history in terms of climate change is preserved in trees. This science was introduced to me by Dr. Muhammad Akbar Zaigham, whose Ph.D. thesis was related to this subject. This topic was better known during a meeting with two expert professors of this field from Chinese Academy of Sciences during our visit to China Beijing. During this time, Prof. Qi-Bin Zang also gave a book on the subject. Then I dived into this book in two days and what I could understood, other than the technical aspects, was the general awareness and familiarity on this topic. In this way, I am presenting the basics of this science to the readers with the hope that if there is an ancient tree anywhere around you, we must contact us once before cutting it at any time so that the natural and environmental history of your village can be preserved before it is lost with the old tree.

In view of the narrowness of the Urdu language, I have given a simple meaning of these sciences for common understanding, which is my personal invention. These terms (in Urdu) may not fully describe with the scientific language prevalent in Urdu. Philosophically, we are pragmatist, so prefer to describe things that work in useful ways.

For me, Dendrochronology emerged as an interesting and important branch associated with the paleontology, the main branch of archaeology, which is an experimental and scientific way of knowing not only archaeology but also a complete scientific record, catalogue, and profile of past environmental changes. However, it is not the marvel of scientists, but is the magnificent natural system of trees, which has been named "Memory of Trees" in this article.

According to the ancient tradition of Bon-Chus, the oldest developed civilization of Baltistan, called Bon Animism, every living being has a soul/spirit. Not only living beings, but everything, whether living or non-living, also has a soul (i.e. invisible identity). In addition to being more active and effective, the spirit of living things also has other biological abilities. Evolved plants, especially evolved trees, have very complex biological systems in this regard.

Each tree records its own details, preserves it in a specific language in an organized way, these stories can be called the tree's autobiography. The record of a particular tree would be very similar to that of its neighbors. Since trees are permanently inhabited in a place, the environmental history, climate and natural events and accidents that occur within that ecology, are completely witnessed by the tree. The beautiful blossoming spring and shivering winters, the hot days and the coldest nights, and anthropogenic activities around the tree are all fully witnessed to and recorded by it. Interestingly, these living trees do not close their eyes, sleep, do not pause in recording even for a moment, storing the current details of each moment in their memory under their own specific system. Modern science has discovered ways to understand the language of these safe records by importing them from tree memory.

In this way, centuries of ecological history can be easily derived, which is absolutely unbiased, factual and accurately reflects the ecological history of a tree around it in accordance with its own history. If a tree's memory is imported correctly and translated / deciphered correctly, it is possible that it will tell us a detailed history of all the important events in the environmental history of the area of the birthplace of this tree, the intensity, duration, effects and consequences of these conditions and events.

Since the history recorded and documented by human beings has difficulties in being authentic in terms of emotions, relationships, prejudices, and many other respects while the history told by a

tree has minimal chances of errors due to the minimal impact of social changes in the history of tree memory. The history of human beings can be fairly biased under different political, religious, and social trends, distortions and changes in them are also very common, but the history of the tree is largely devoid of these difficulties.

Tree history can tell us what kind and intensity of flooding occurred in which area, how much snow or rain, or how long it experienced drought. When the neighboring glacier came forward and when it retreated, when the forest or settlement caught fire or was planted, how much the fire affected the tree itself or its neighbors. When the branches of this tree were broken, when its trunk was hit by axes, when its wounds were healed or when it lost its life while succumbing to these injuries. When did a strong tree dwell in its neighborhood , and when did it lose its strength and descend the stairs of old age ? When was the longest spring of life and when did it has to endure the longest winter?

Many such things can be revealed, but not as easily as I am describing. Many things will require cellular-level investigations, which is not possible in a normal laboratory or for a normal researcher. There are immense research opportunities in this area, especially in regions where there are very old evergreen trees or their wood and relics. Because evergreen trees may be of age over centuries, this study preferably uses evergreen trees as references.

Suppose there is a building in your village that is hundreds or thousands of years old that uses wood. If so, you may consider that log/ wood is a kind of hard disk in which the history before the construction of this building is preserved, which itself shows the historical events and events of hundreds of years ago. By comparing this dead piece of wood to a living tree of its family (Specie), its history can be known and this series can go back centuries. That's what I'm sticking to today. In the same way, inshallah next time will talk about the memory of glaciers.