

TELL ME

So many extraordinary questions pop-up in our minds pertaining to the most ordinary occurrences in life. Let us simplify the difficult processes and explain the how, why, when and where to you...



WHAT

are backwaters?

The term has been applied as a metaphor to physical and social areas that have been bypassed or neglected in economic development, or in the expression a "cultural backwater"

A backwater is a part of a river in which there is little or no current. It can refer to a branch of a main river, which lies alongside it and then rejoins it, or to a body of water in a main river, backed by the tide or by an obstruction such as a dam. Manmade restrictions to natural stream flow or temporary natural obstructions such as ice jams, vegetation blockage, or flooding of a lower stream can create backwaters. If a river has developed one or more alternative courses in its evolution, one channel is usually designated the main course, and secondary channels may be termed backwaters. The main river course will usually have the fastest stream and will possibly be the main navigation route; backwaters may be shallower and flow more slowly, if at all. Some



PADDY FIELDS IN THE KUTTANAD REGION

Kuttanad region is crisscrossed with waterways that run alongside extensive paddy fields, as well as fields of cassava, banana and yam. The crops are grown on the low-lying ground and irrigated with

fresh water from the canal and waterways connected to Vembanad lake. The area is similar to the dikes of The Netherlands, where land has been reclaimed from the sea and crops are grown.

of the backwaters are rich in mangrove forest. This results in a more diverse environment of scientific interest and worthy

of preservation. It also provides opportunities for leisure activities such as canoeing and fishing.



KERALA'S ECONOMIC GAINS FROM BACKWATERS

Connected by artificial canals, the backwaters form an economical means of transport, and a large local trade is carried on by inland navigation. Fishing, along with fish curing, is an important industry. Kerala backwaters have been used for centuries by the local people for transportation, fishing

and agriculture. The region has supported the efforts of the local people to earn a livelihood. Recently, agricultural efforts have been strengthened with the reclamation of some backwater lands for rice growing, particularly in Kuttanad. Boat-making has been a traditional craft, so has been the coir industry.

WHY ARE THEY CALLED SO?

The place is called backwaters because the lake water is actually fresh river water that comes down from the river and is then used for paddy fields whenever the need be, and later the lake water as it goes ahead, merges with the ocean.

WHAT IS BACKWATER EFFECT?

The effect which a dam or other obstruction or construction has in raising the surface of the water upstream from it.



WHO

are the key scientists involved in the cell development theory?

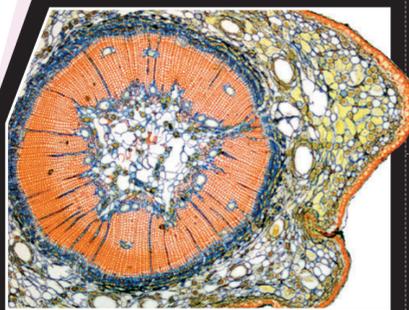


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Robert Hooke examined thin cork slices with a compound light microscope and saw boxlike structures he called cells

Anton van Leeuwenhoek discovered "protozoa" - the single-celled organisms and he called "animalcules"

Robert Brown coined the term nucleus when he discovered that plant cells contained a small dense round body

Matthias Schleiden concluded all plant tissues are composed of cells and that an embryonic plant arose from a single cell

Theodor Schwann stated plant tissues were composed of cells. He concluded all tissues are made up of cells

The modern atomic meaning used by physicists was coined by **Ernest Rutherford** (known as the Father of Nuclear Physics) in 1912, although the use of the word "nucleus" to mean the "central point of an atom" was done by **Michael Faraday** (British scientist) in 1844

Rudolf Virchow was the first to validate the theory that origin of cells was due to division of pre-existing cells

Henri Dutrochet who found and named osmosis (passage of solvent through a semi-permeable membrane)

Johannes Purkinje coined 'protoplasm'. In 1846, Sir Hugo Von Mohl redefined it as a slimy substance in the vacuole

Max Schultz defined cell as a mass of protoplasm with a nucleus and recognised protoplasm, with its nucleus

Felix Dujardin proposed the classification of a new type of single-celled organism he called rhizopoda (protozoans)



WHEN

was Plato's Academy founded?

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Plato Statue Outside the Hellenic Academy - Getty

LOCATION OF PLATO'S SCHOOL

The meeting location of Plato's Academy was a public grove near Athens. The garden had once been home to religious groups with its grove of olive trees dedicated to Athena, the goddess of wisdom, war, and crafts. Ultimately, the garden was left to the citizens for use as a gymnasium. Plato delivered his lectures there in the small grove where senior and junior members of the group of intellectuals met.

The Academy was founded by Plato in 387 BC in Athens. Aristotle studied there for 20 years (367-347 BC) before founding his own school, the Lyceum.

THE ACADEMY

Plato's enormous impact on later philosophy, education, and culture can be traced to three interrelated aspects of his philosophical life: his writ-

ten philosophical dialogues, the teaching and writings of his student Aristotle, and the educational organisation he began, "the Academy." Plato's Academy was not a formal school or college. Rather, it was a more informal society of intellectuals who shared a common interest in studying subjects such as philosophy, mathematics, and astronomy.

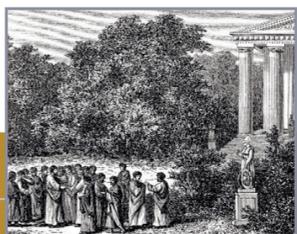


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WHO WAS PLATO AND WHAT DID HE TEACH?

He is one of the most influential philosophers of all time. Together with his mentor, Socrates, and his student, Aristotle, he provided the main opposition to the materialist view of the world represented by Democritus and Epicurus, and he helped to lay the foundations of the whole of Western Philosophy. In his works, especially his many dialogues,

he blended ethics, political philosophy, epistemology, metaphysics and moral psychology into an interconnected and systematic philosophy. In addition to the ideas they contained, many of his writings are also considered superb pieces of literature.



WHY

are matsutake mushrooms expensive?

Also known as red pine mushrooms, matsutake have a home range that includes Japan, Korea, northeastern China and southeast Russia. There are several species of matsutake mushrooms that can also be harvested from Canada, Norway and the US, just to name a few, but the most highly-coveted variant is the one primarily harvested at the roots of red pine trees.

Matsutake mushrooms grow under trees and are usually concealed under litter on the forest floor; forming a symbiotic relationship with roots of various tree species. In Korea and Japan, matsutake mushrooms are most commonly associated with *Pinus densiflora*.



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It can cost up to \$459 per kilogram!

What gives them the price tag?

➤ One reason is that the number of matsutakes harvested has decreased sharply in Japan due to the introduction of a bug that kills trees they grow under. With spending power going up and availability of matsutakes declining, it has achieved a mythical status in Japan. ➤ More than just a mushroom, matsutakes are related to the Japanese symbol for longevity. ➤ Matsutakes are often given as lavish, elitist gift baskets to show appreciation and is seen as a 'status symbol'.

MOST FAMOUS IN JAPAN

Matsutake mushrooms are said to have been part of the Japanese diet for more than a thousand years. Despite this long history, however, no one has been able to

figure out how to farm them, and they must be gathered by hand. Japanese matsutake are found under fallen leaves at the foot of pine trees.

LUXURY FOODS IN INDIA

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India doesn't have many super-expensive luxury foods. There is saffron, of course, the original culinary gold, and there is also actual gold, beaten thin in sheets of varq. Another such luxury food is 'Gucchi' mushrooms found in Himachal Pradesh.

EXCLUSIVITY

Stories have come up about how they are sown by thunder/lightning, or grow best in areas which have suffered forest fire, but one really has to go looking out for 'Guchhis'.

THE NAME TAG & THE PRICE

There is one product though that is staggeringly expensive, around ₹1,400-₹1,500 for just 100 gm: dried morels, the mushrooms from the Himalayas that are known as Gucci, which may be a hill dialect term for mushrooms, but is also an entirely appropriate name given their luxury price. They are found on the foothills of the Himalayas.

It is one of the ironies of expensive foodstuffs that are collected by really poor people. This is because they tend to be impossible to cultivate commercially, and so have to be gathered from the wild, and it is the villagers who do this. The pay-off is additions to their income - 20-30% of annual cash income in some villages.