

AYAHUASCA

“The vine of the soul”



WHAT IS AYAHUASCA?

- Psychoactive plant mixture consumed as a drink (tea)
 - Hallucinogenic



- Two common components:
 - *Banisteriopsis caapi* (Malpighiaceae family)
 - Flowering plant which grows up trees to expose flowers to sun
 - Bark is used in mixture and soaked in water
 - *Psychotria viridis* (Rubiaceae family)
 - Large tropical shrub
 - Leaves are used in the mixture



CREATION

- Are there effects from either *B. caapi* or *P. viridus*?
 - No, neither is active on if ingested individually
- How was it created then?
 - Not entirely clear, but somehow it was discovered thousands of years ago



EFFECTS

- Can induce hallucinations
- Taste: reported to be awful, one description “The smell and acrid taste was that of the entire jungle ground up and mixed with bile”
- Used as a purgative, as it often induces intense vomiting

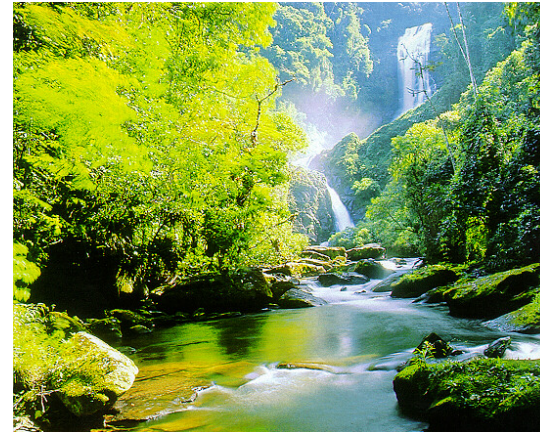
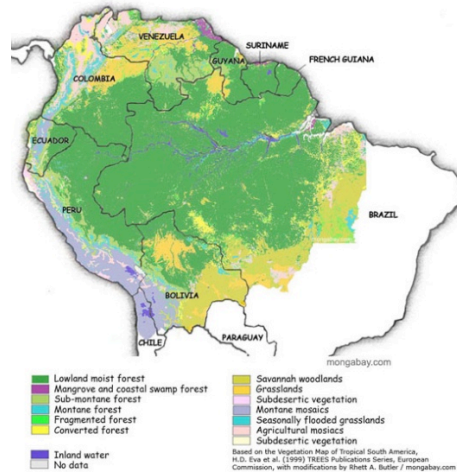


- Almost no reported cases of use leading to death



AYAHUASCA'S ORIGINS AND LOCATIONS

- South American and the Amazon Basin
 - Brazil, Peru, Colombia, Ecuador, Bolivia

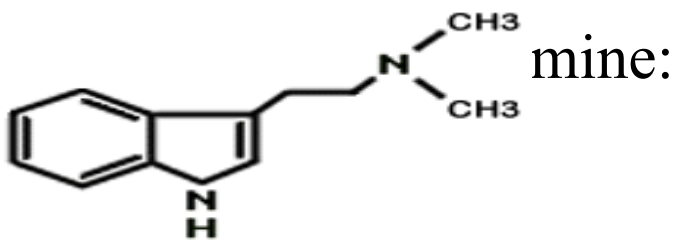


- Some use today in the United States, although neither *B. caapi* or *P. viridus* are grown here

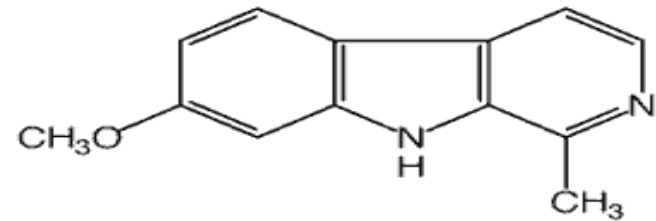


ACTIVE COMPOUNDS

- There are many compounds, but evidence indicates the psychoactive effects result from specific compounds in each plant
- *B. Caapi*: Contains 3 different β -Carbolines (harmine, harmaline, and tetrahydroharmine) which are alkaloids



N,N-dimethyltryptamine

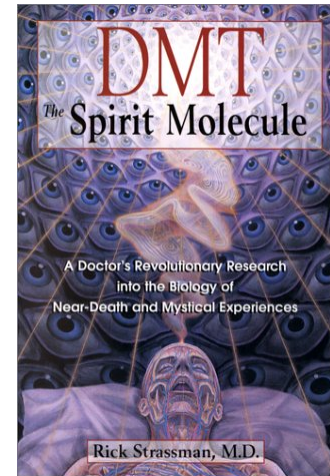


- *P. Viridus*: Contains an alkaloid commonly called DMT or N,N-dimethyltryptamine



COMPOUND INTERACTION

- DMT is the psychotropic compound with hallucinogenic effects
- Normally DMT is broken down by digestive enzymes in the stomach
- Enter the β -Carbolines, which inhibit these enzymes and allow DMT act in the brain



USES: RELIGION

- Ayahuasca has been used in spiritual/religious ceremonies for thousands of years



- Today, there are three significant religions primarily in Brazil openly using ayahuasca on a regular basis, the União do Vegetal (UVD), the Santo Daime, and the Barquinia



USES: RELIGION

- The UVD is international and has a branch in the US of approximately 150 members in Santa Fe, New Mexico
- Reasoning for ayahuasca use is it allows people to have religious experiences where they can communicate with spiritual forces

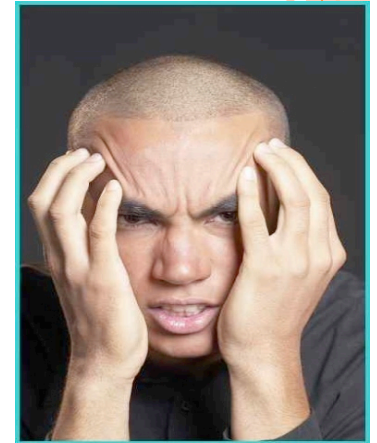


USES: TRADITIONAL MEDICINE

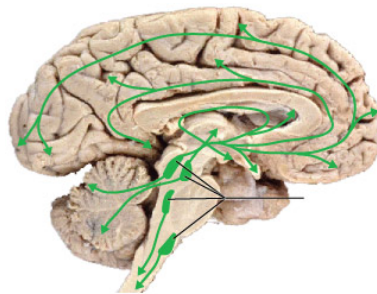
- Used by local healers in the Amazon Basin
 - Sickness is viewed differently, can have spiritual causes that need to be addressed
 - Ayahuasca is believed to fix health problems because it addresses a person's spirit



USES: MODERN MEDICINE



- Primarily implicated in treating psychological disorders including alcoholism, depression, and anxiety disorders
 - Possibly has an effect on serotonin receptors
- Suggested to possibly influence Parkinson's disease, with β -Carbolines increasing dopamine release



- Research for Western medicine is in very early stages



LEGAL ISSUES

- Intricate Legal Status:
 - Ayahuasca is not explicitly illegal
 - DMT is illegal, a class I banned substance
 - Brazil in 1992 and US Supreme Court in 2006 approved its use in religious settings (UVD in United States)



FUTURE OF AYAHUASCA

- Drug Tourism: tourists ingesting ayahuasca
- More research needs to be conducted on the effects and possible benefits
 - Could lead to clinical trials



- Future research needs legal status to be clarified
 - Different regulations depending on status

