

## Ayahuasca/EEG Research Progress Report and Invitation to Donate



By Frank Echenhoffer, PhD

With the assistance of MAPS in helping to recruit research participants and to raise funds, the Ayahuasca/EEG Research Project has successfully completed the EEG recording phase of the project.

Twelve research participants gathered from January 7–18 on the Island of Santa Caterina in Dr Luis Eduardo Luna's unique and beautiful facility, Wasiwaska. Wasiwaska serves as a Research Center for the Study of Psychointegrator Plants, Visionary Art, and Consciousness, not far from Florianopolis, Brazil.

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The participants journeyed from Finland, Sweden, South Africa, Hungary, Brazil, England, Cyprus, and the United States and were all well acquainted with the ayahuasca brew. Dr Luna created an 11 day seminar in which participants were able to take part in four evening ayahuasca ceremonies, to later share their experiences, to learn from each other, and to explore the culinary delicacies and great beauty of the island.

During this seminar, each of the participants also took part in one seven-hour individual EEG ayahuasca research session. Katee Wynia was the primary research

team member supervising the EEG recording effort in this unique environment. She directed and supervised the 12 EEG sessions, with the help of Hratch Nargizian, over the course of the seminar. Dr. Luna was present for all sessions to facilitate, using traditional shamanic techniques when needed. On two occasions participants asked Dr. Luna to facilitate while EEG was being recorded, which might be the first time that such techniques have been monitored using EEG. While EEG analysis has yet to be done, the preliminary visual inspection of the EEG for both participants showed high amplitude EEG delta waves (1-4 cycles per second). This occurred only in the



Wasiwaska

frontal EEG locations of the brain when participants were experiencing difficulties in their ayahuasca journey. During the approximately 10 minute interventions, the EEG delta diminished and finally was not noticeable upon visual inspection.

Since our return from Brazil, the next phase of this research project has begun, along with additional fundraising needed to complete the EEG analysis portion of the project. What remains to be done is the analysis of the EEG data, so that the August 2000 pilot data that Frank Echenhofer and his dissertation student David Stuckey acquired on two individuals can be



Research participants and staff



Luis Eduardo Luna with Michael Bailot just prior to his ayahuasca EEG session

replicated. This earlier EEG research indicated that very high coherence was discovered among the majority of EEG recording locations in the EEG gamma frequencies (from 36 to 64 Hz) during the eyes-closed ayahuasca condition, as compared to the eyes-closed baseline condition.

The implications of this finding may be very important for consciousness research in general, and psychedelic and ayahuasca research in particular. Many neuroscience studies suggest that moderate levels of gamma coherence occur in the “binding” together of the many elements comprising normal consciousness into a unified experience. Antoine Lutz, Richard Davidson, and others reported that long-term Tibetan meditators also show very enhanced EEG gamma synchrony during a compassion meditation practice ([www.pnas.org/cgi/doi/10.1073/pnas.0407401101](http://www.pnas.org/cgi/doi/10.1073/pnas.0407401101)). It is possible that high EEG gamma coherence/synchrony may be markers for states of heightened awareness common to the sacred use of meditation and entheogens, and that these states involve enhanced binding processes.

It is quite important to attempt to replicate our prior

EEG pilot research because it may open important new lines of investigation for EEG and consciousness-oriented research. Clearly, robust EEG and experiential correlates can be used to develop biofeedback protocols, which, in turn, might be used to assist individuals to reproduce the specific patterns of EEG gamma coherence that occur during ayahuasca experience, enabling them to access shamanic states without using an entheogen.

Individuals interested in making tax-deductible donations: To support this continuing research project contact MAPS, an IRS approved 501(c)(3) non-profit corporation, and MAPS will allocate 100% of the donations ear-marked for this project as well as providing donors with needed documentation for tax purposes. It is important that you indicate to MAPS that your donation is for the Echenhofer Ayahuasca EEG Project. For any additional information about making a donation MAPS can be contacted at (617) 484-8711 or by mail at MAPS, 2105 Robinson Avenue, Sarasota, Florida, 34232. If you are considering making a donation and would like further information, please e-mail Dr. Echenhofer at [fechenhofer@ciis.edu](mailto:fechenhofer@ciis.edu) or call (415) 377-3153.

The proposal for this research project is on the maps.org website: Go to the [maps.org](http://maps.org) website, click the Psychedelic Research Worldwide link. Then on the left column under Research click the ayahuasca link. Scroll down to Ayahuasca under development to locate the link to Exploring Personality, Phenomenological, and EEG Correlates of the Ayahuasca Journey Experience to Facilitate an Individual’s Spiritual Development.

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The view from the Wasiwaska EEG lab

