

# **Neurophysiologic Impact of 'Libro al Río' Festival on Community Well-Being**

## **[A Mobile EEG Study]**

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**Abstract:** The study aims to measure the neurophysiologic impact of community-based environmental and cultural interventions on attendees' well-being using the MyndPlay portable EEG device. It explores the relationship between mental health and environmental actions, emphasizing the importance of cultural and social events in enhancing well-being. By assessing brain activity, the research seeks to understand emotional and cognitive responses related to participation in such initiatives, thereby providing insights into how cultural activities can improve mental health outcomes. Involving 13 participants aged 18 to 23, measurements taken before and after the intervention focused on Alpha and Beta band power, as well as indices of Attention and Meditation. Results showed significant increases in Alpha power and the Alpha/Beta index post-intervention, indicating enhanced relaxation and mental clarity while maintaining attention levels. The findings suggest that these community initiatives, likely incorporating meditation or mindfulness, positively influence brain activity and cognitive states.

**Keywords:** Mobile EEG, Environmental Neuroscience, Public Space, Relaxation, Attention, Community Intervention