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Brain Mapping Study #1 Utilizing Celtic Art Mandalynts

Conducted by:

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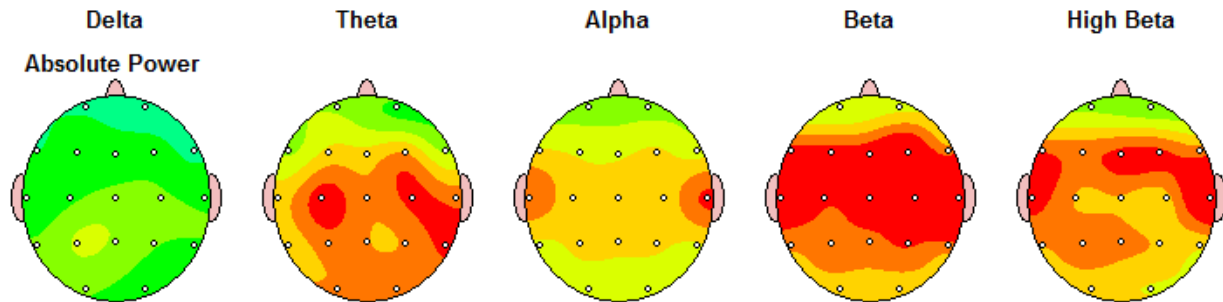
The Celtic Art Store

www.CelticArtStore.net

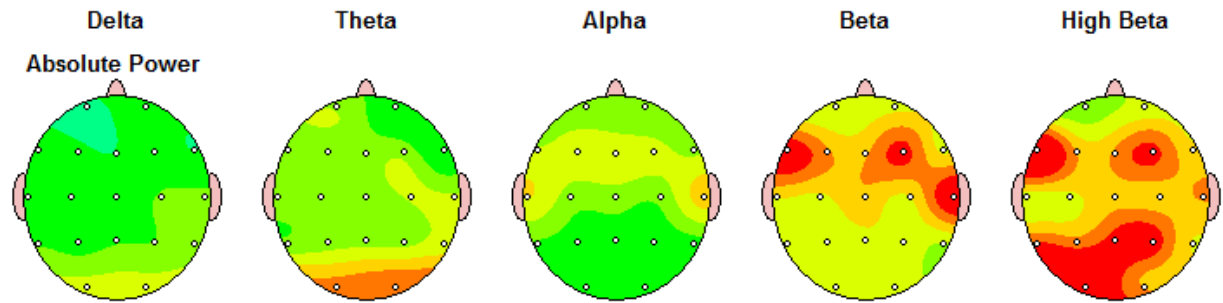
Celtic Mandalynth Brain Mapping Study #1 conducted by Jeff Tarrant, Ph.D., BCN

44 year old female. Very high functioning with significant anxiety and worry. The color coding of the brain maps below shows the amount of brainwave activity compared to a normative database. Green colors indicates that this person has an expected amount of activity. As the colors get brighter (yellow, orange, red), it indicates an increasing excess of activity in that particular brainwave frequency.

Before working with the Mandalynth, you can see that this person had excess power in nearly all bands, but especially in beta. This is probably reflective of excessive thinking/worrying/analyzing.



After doing the Medium Mandalynth with dominant hand for 3 minutes, here are the results:



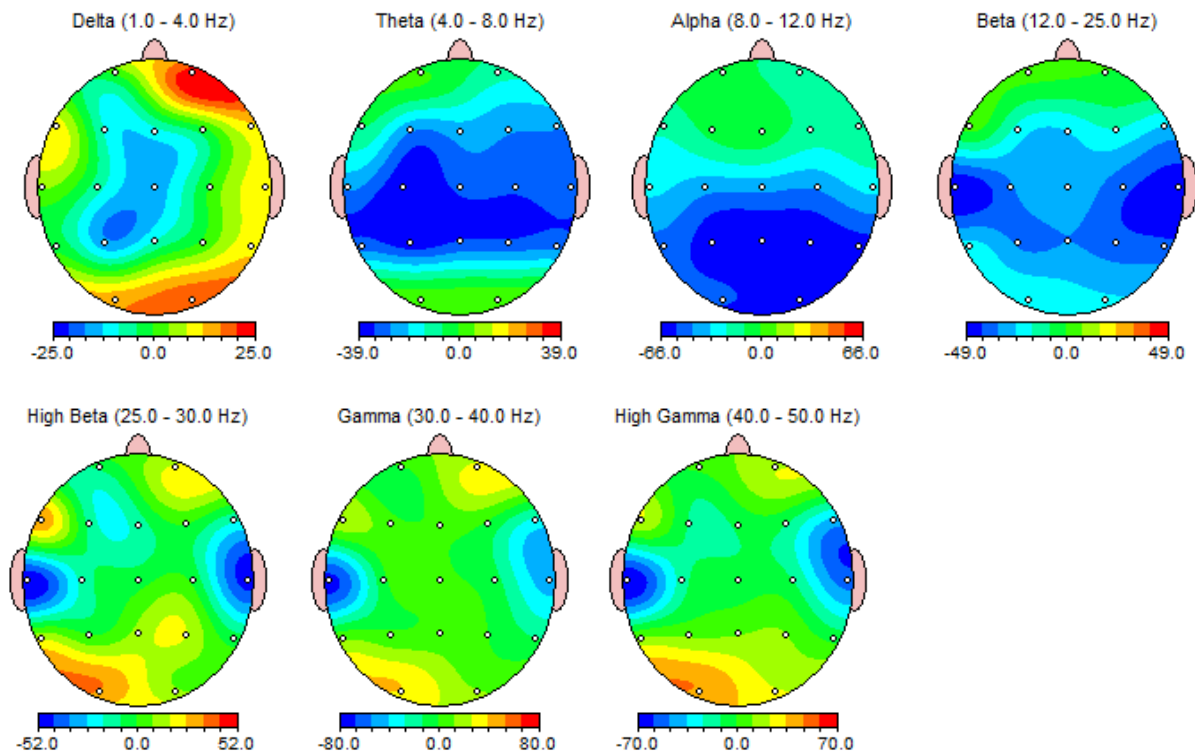
The theta and alpha bands almost completely normalized (green) while the beta decreased significantly and the high beta pattern shifted away from the frontal lobes.

The brain map images below are actually a comparison of the dominant hand data with the baseline. The keys below each head map indicate the percent difference between the two conditions. For example, if you look under the alpha head, you will see that the scale goes from -66 to +66. This indicates that at the far end of the continuum (deep blue or dark red), there was a 66% difference between conditions.

In this analysis, the cooler colors (blues) mean that the activity in that band decreased when doing the Mandalynth. The range of the key tells you how much it decreased. If there are bright colors, this is an area/band where the activity increased when doing the Mandalynth.

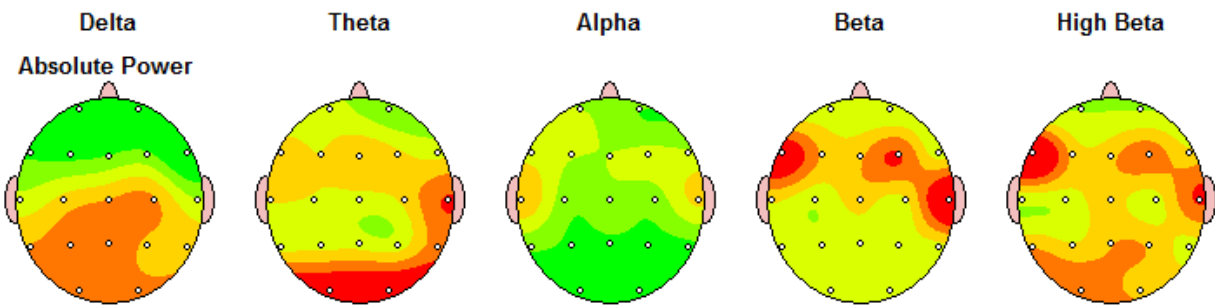
You can see very clearly that nearly all bands in numerous areas decreased dramatically after using the Mandalynth for only 3 minutes. Interestingly, you can see very specific areas of decrease in the very fast frequencies. These are in the temporal areas which have the most direct connection to the limbic

(emotional) systems of the brain. This suggests that these areas were “quieting down” when using the Mandalynth.



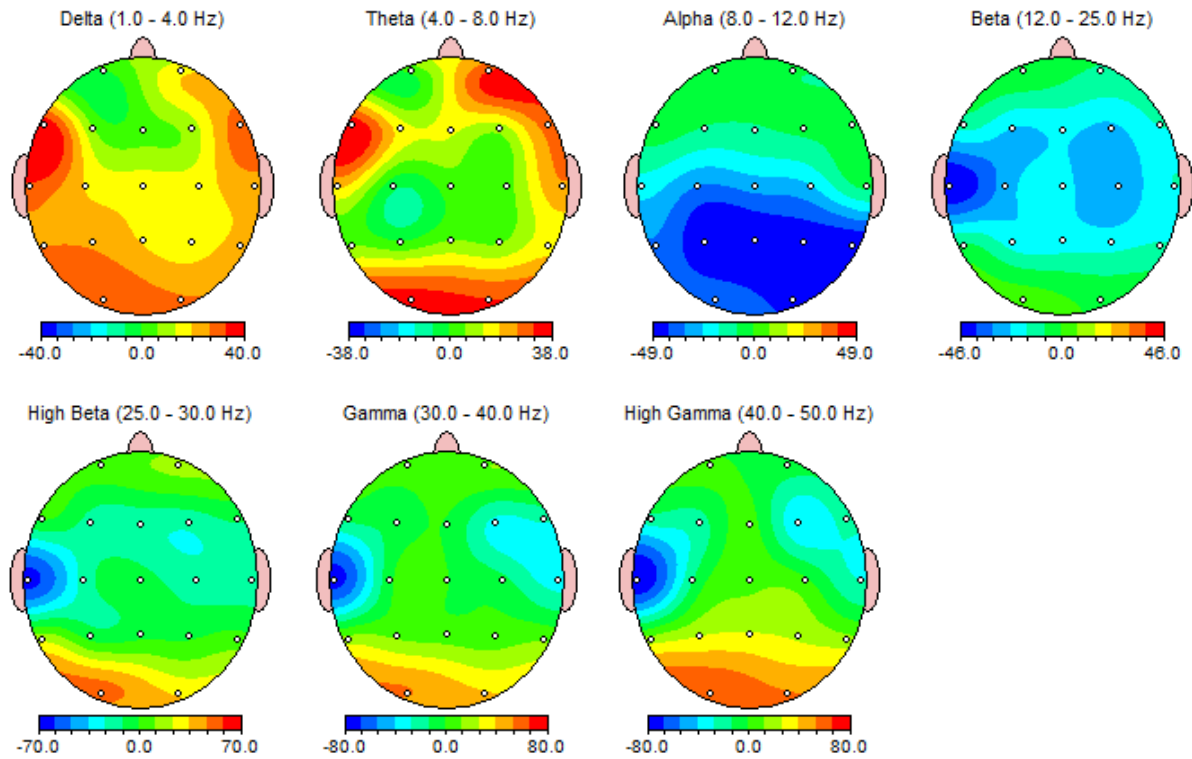
When the client was asked to try the same Mandalynth (Medium) with her non-dominant hand, here is what happened (compare this image to the first two):

Z Scored FFT Summary Information



The delta waves (our slowest brainwaves) increased significantly at the back of the head (visual processing) as did theta. At the same time, the beta and high beta both decreased more significantly than when using the dominant hand. The overall interpretation is that the brain became “quieter” when using the non-dominant hand (more slow waves and less fast waves), which is exactly what we would want with someone engaged in excessive thinking/worrying.

When we compare the non-dominant hand Mandalyntz brain pattern to the baseline, you can see the change patterns very clearly:



In this case, you see some similar patterns as the dominant hand (decreased alpha, decreased beta, decreased high beta/gamma/high gamma in temporal regions), but you also see some differences. The increase in delta and theta as well as a hemispheric difference with the fast activity. With the non-dominant hand you see the decrease of fast activity only on the left hemisphere, whereas with the dominant hand you see it in both hemispheres.