



Final Paper for Sound Healing Certificate - Globe Institute

By Samira Aly, M.Mus. (Cellist, Composer)

The Triple Effect: Healing Through Sound, Meditation, and Mandala Creation

My paper explores how combining repetitive healing music, guided meditation, and personal mandala creation forms a powerful, multi-sensory approach to self-healing. It explains the neuroscience behind brainwave entrainment through sound, how meditation deepens emotional integration, and why drawing your own mandala helps process and embody subconscious shifts. By engaging the auditory, visual, and tactile senses at the same time, this method calms the nervous system, supports trauma release, and leaves a tangible record of the healing process.

Introduction: Healing Is Multi-Modal

Every cell in our body resonates with frequencies, and our brains, hearts, and nervous systems all respond to sound and rhythm. Meditation calms the mind, music soothes the heart, and creative expression gives the soul a voice. But when we combine these elements intentionally, the healing effects don't just add up — they multiply.

There is an old saying: *"You can lead a horse to water, but you can't make it drink."* In the context of healing, this means that even the best tools (like meditation or sound healing) may not penetrate deep enough if the mind resists. But if we present the mind with various pathways — sound, vibration, stillness, and the physical act of drawing — we create multiple ways for the subconscious to open. This makes it far more likely that real change, release, and integration will happen.

In this paper, I explore the science behind how repetitive cello music and guided meditation entrain the brain to relaxed states. I'll also show why creating a personal mandala during this process grounds and embodies the healing, leaving behind a tangible record of what has been felt, shifted, and expressed.



The Neuroscience of Repetitive Sound

Sound healing is as ancient as the first heartbeat. Modern research, however, helps us understand why repetitive music has such a profound effect.

Brainwave Entrainment

Our brains naturally synchronize to external rhythmic stimuli — a phenomenon called entrainment. When exposed to repetitive sounds, droning tones or binaural beats, the brain can shift from beta (active thinking) into alpha (relaxed awareness) and theta (deep meditation and subconscious access).

Rhythmic drumming and repetitive chanting can induce trance-like states. Low-frequency, steady music — like cello drones and simple repeating phrases — can have similar effects. It essentially “coaxes” the mind out of fight-or-flight, calming the amygdala and activating the parasympathetic nervous system (rest and digest).

Vagus Nerve Stimulation

Sound also stimulates the vagus nerve — the largest nerve of the parasympathetic system — especially when tones are low and resonant. This is why people can feel a soothing vibration in their chest when listening to deep cello notes. Research on music therapy shows this can lower heart rate, reduce cortisol (the stress hormone), and even improve immune function.

Meditation: Guiding the Mind Deeper

Repetitive sound alone helps, but when combined with intentional guidance — a simple voice or breath awareness — it multiplies the effect. Meditation activates the default mode network in the brain: the system linked to daydreaming, inner imagery, and memory processing. Studies show that guided meditation can increase activity in areas related to self-awareness and emotional integration.

When these states are reached alongside soothing music, the brain becomes more “plastic” — meaning it is more receptive to new insights and emotional release.

The Mandala: A Portal for the Subconscious

While the word *mandala* means “circle” in Sanskrit, psychologists like Carl Jung used it to describe a universal symbol of wholeness. Jung found that his patients naturally drew circular images when working through trauma, confusion, or big life shifts. Why?

Externalizing the Internal

When we create a mandala in meditation, we are giving shape to what is otherwise invisible — emotions, memories, even the body's subtle sensations. This is a form of somatic expression: feelings that may be "stuck" in the nervous system are given a pathway to move through the body and land on paper.

Why Making Your Own Matters

It is not the same to look at a beautiful mandala versus drawing your own. Creating your own design activates the sensorimotor brain pathways. Trauma is stored in the body and must be moved through the body to be released. When your hand draws circles, lines, or symbols while the mind is in an entrained, relaxed state, you are physically imprinting new pathways for self-regulation and integration.

Why Combination Is More Powerful

So what happens when you bring all three together — repetitive cello loops, meditation, and mandala creation?

Sound calms the nervous system and shifts brainwaves.

Meditation focuses the mind and intention.

Drawing the mandala gives the energy a channel to flow through and leaves a record of the shift.

By combining multiple sensory pathways — auditory, visual, and tactile — you greatly increase the effectiveness of the healing process. This multi-modal approach mirrors modern trauma therapies like EMDR and somatic experiencing (SE, Dr. Peter Levine), which work by engaging multiple senses to access and release deeply held patterns. Combining these tools works because each one activates different parts of the brain and nervous system, making it more likely that suppressed emotions and memories can surface, be safely processed, and integrated into conscious awareness. All three quiet the mind and help you be fully in the present moment, which is essential for true self-healing. Together, they form a bridge between the subconscious mind and the physical body.

How I Use Cello Loops in My Healing Practice

The range of the cello mimics the range of the human voice, and its sonorous timbre resonates deeply. When I create live cello loops, I start with simple, repetitive rhythmic patterns, then layer harmonies and drones. As the music repeats, it becomes like a sonic mantra: the mind stops grabbing for distractions and starts to rest. This is the perfect state to begin drawing.

Materializing the Healing: From Vibration to Paper

In my guided sessions, I invite people to draw their own mandala while the cello loops play. I keep the instructions simple:

1. Take a blank piece of paper and start in the middle.
2. Breathe with the music.
3. Let your hand move as it wants, without judgment starting in the center and going outwards.
4. As you start drawing the form will follow.

The shapes, lines, or colors may reveal emotions or insights that words cannot. The paper becomes a “snapshot” of what the person felt and moved through during the session.

Benefits and Considerations

1. Creating Your Own Mandala

Benefits:

- Emotional expression & processing (safe outlet for feelings)
- Access to the subconscious
- Reduces stress & anxiety (lowers cortisol)
- Sense of control & containment (circle shape is grounding)
- Improves focus & mindfulness
- Enhances self-awareness
- Tangible record of inner work
- Accessible for all ages, no special skills needed

Considerations:

- Self-criticism about art quality
- Intense emotions may feel overwhelming
- Should be done in a safe, non-judgmental setting

2. Meditation

Benefits:

- Lowers stress hormones & blood pressure
- Improves emotional regulation (thickens prefrontal cortex)
- Supports trauma processing (rewires stress response)
- Boosts resilience & positive mood (dopamine, serotonin)
- Improves sleep
- Accessible anytime, anywhere
- Strengthens mind-body connection

Considerations:

- May feel difficult if unresolved trauma is present
- Can bring up buried emotions
- Beginners may feel frustrated expecting instant calm

3. Calming Repetitive Healing Music

Benefits:

- Entrainment of brainwaves (alpha/theta states)
- Stimulates vagus nerve (calms fight-or-flight)
- Emotional release beyond language
- Regulates heart rate & breath
- Can be tailored live (tempo, volume, looping)

Considerations:

- Very low drones or binaural beats not tuned to you can feel unsettling for some
- Sudden volume changes or dissonance may trigger stress
- Tinnitus or sound sensitivity issues

Conclusion

All three tools — creating a mandala, meditation, and healing sound — are safe, evidence-backed ways to access the subconscious and calm the nervous system. When combined, they create a multi-sensory bridge for healing and help the mind disengage from interfering thoughts — especially helpful for people who struggle to relax with just one method.

Any side effects are generally mild and can be reduced by providing a safe, supportive space with clear, gentle guidance.

By offering the mind vibration, breath, stillness, and creative expression at once, we help it remember its natural state of balance — and carry that state forward into daily life.