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From Mud: Lessons of Mindfulness Found in Clay Work

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GMIND 7500 LR01

Dr. Melissa Jean & Dr. Andrew Olendzki

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Abstract

A significant part of the earth's history, clay represents the interconnectedness of all life. While clay has long been used in the field of art therapy, the use of the material in mindfulness has been unfolding. This creative thesis explores the significance of clay to humankind. It reviews Buddhist literature and text to identify the elements and parallels of clay work that make it a compelling contemplative material. Neuroscientific research that connects the mind and body interaction further make the case for clay work as an effective mindfulness-based practice. The creative component of this thesis is a clay retreat that offered a variety of contemplative practices centered around clay work. Practices included pinching clay and breathwork, R.A.I.N method inspired by Tara Brach, mindful walking and a Metta meditation. Each practice invited the clay as a companion or an anchor. The knowledge and skills may serve as a guide to other practitioners who seek to incorporate clay to their practice of mindfulness.

List of Hyperlinks

The creative project for this thesis included a clay retreat where participants were able to experience different forms of clay meditation. The retreat and practice content is documented via blog.

<https://cwilli480.wixsite.com/from-mud--mindfulness>

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/grounding-breath-and-pinch-pots>

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/collective-breath>

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/clouds-and-clay>

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/r-a-i-n-with-clay>

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/dialogue-with-clay>

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/metta-with-clay>

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/reclayming>

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From Mud: Mindfulness Lessons Found in Clay Work

Our modern world is filled with consumerism, a byproduct of a capitalistic society that hosts a constant stream of stimulation for our senses and competition for our attention. It is easy to see how attention is hijacked by distractions and even pushed toward delusion through marketing and an ever-growing virtual reality of filters, social media, and various applications that distort perspective. As we navigate these times where more information is readily available at the swipe of a screen, there is a growing disconnect between the mind and the body. The opportunity to join the outward and inward dimension of our lives has become the work of mindfulness. Slowing down to engage with simple elements of nature offers an immense opportunity to provide connection to our senses and explore the depths of our consciousness. Basic elements such as air, water, and Earth are foundational to life and bring out intrinsic connections. Working with clay is an effective mindfulness-based practice that facilitates embodied awareness by engaging the hands, senses, and serving as an object of awareness.

This paper seeks to juxtapose three foundational areas to make the case for clay work as a unique and powerful way to practice mindfulness. First, this paper will call attention to the anthropological and biological significance of clay to humankind. Second, it will explore a variety of Buddhist themes that support clay as an object to support mindfulness practices. Third, it will explore the neurophysiological components that link the effect of clay work to the brain and body. Several studies on clay and mindfulness and their findings will be presented to explore current work on the theme. Lastly, this paper will offer several samples of clay meditations that were featured in a clay retreat led by the author. This retreat is documented in a blog, which is linked in the practices descriptions in the Creative Project component.

The Significance of Clay

According to Bankson (2008) clay is comprised of stone, water, and decomposition. It was around 5 billion years ago that our solar system began to take shape around the sun and a thin blanket of atmosphere around swirling water and volcanic cones formed our planet (Swimme & Berry, 1994). This barren landscape of stone and water provided the Earth with the basic minerals and elements that would begin the evolutionary chain of life. As one primordial cell devoured another, the cycle of death and decay would begin and relationships of dependency between beings was created (Swimme & Berry, 1994). While stone is eroded by water and creates sand, clay is sticky and pliable due to the slime of decay of organic matter that draws the stone particles together. Life and death are necessary for clay to become the soft, flexible, substance that is able to hold an impression. Clay is the earth's memory. It holds the footprints of dinosaurs and imprints of ancient plants. As layers of clay formed over time, this compression created fossils. Fossils tell us the story of the lives of past creatures. Clay artifacts of pottery shards from early humans, cave paintings, even early tablets holding scriptures hold the story of humanity. Throughout time, clay continued to record the development of life on Earth 15 million years in the making (Swimme & Berry, 1994). When we hold a piece of clay, we are connected to this history.

Clay is a highly responsive material that changes with the lightest touch. This makes it a perfect material to explore moment-to-moment awareness. Heimlich and Mark (2011) observe that by simply pressing a finger into a block of clay, one can observe the fingerprint transfer to the surface of the clay and that is a visual indication of existence in the present moment. An exchange of clay residue can be observed on the fingertip, drying quickly to dust. Clay offers properties beyond touch for the sense doors to explore. The earthen smell of clay can be

especially unique to its place of origin. Clay can have variations in color depending upon region, its unique mineral profile, and how deeply from the Earth it is retrieved. Before beginning a practice with clay, it is important to understand where the clay came from, similar to a land acknowledgement. Clay has an identity unique to its' geological formation of sedimentary elements and the history of environmental impacts over time (Ross and Kerr, 1931). By interacting with a part of the Earth that is literally right under our feet, we are able to accept the present moment and become rooted within it. As a result of being from deep in the Earth, clay reminds us of our biological linkage on a physiological level, a cellular level, and an elemental level. As Bankson (2008) points out, clay has long facilitated storytelling and symbol making, as an integral part of the cycle of nature, clay unifies us to the interconnection of all life. The Earth nurtures us and through working the clay there is a reciprocal transfer of energy. This reminder of mortality and interconnectedness to the Earth creates the conditions for a sublime experience.

Clay and Buddhism

The mud which gives rise to the lotus blossom is regarded as a symbol of suffering and life's challenges by Buddhists (Nhat Hahn, 2014). Mud represents the first noble truth of *dukkha*, a universal truth which we all must face as humans. It is possible for us to overcome the mud by learning, practicing, and experiencing so that we may break through the surface of the muck and reveal our beauty, like a lotus opening above the surface of the water, which is a symbol of awakening. Working in clay is an opportunity to embody the lessons of the Buddha. The first of the lessons of the Four Noble Truths is the realization of the truth of suffering or *dukkha*. Wardi-Zonna (2019) describes how clay work illustrates the perpetual want and dissatisfaction, which represents the second noble truth as potters work toward an ideal and face challenges along the process. The fluid form of clay highlights the virtues of contentment as one accepts (this is

evoking the third noble truth) the form as it is to move onto facing the next task or challenge that emerges from the clay, the wheel, the tool or the hand. Wardi-Zonna (2019) also describes the role of right mindfulness as the body and the mind synergize in creation in the clay studio.

According to the Theravadin Abhidhamma, mindfulness is a mental quality that entails “presence of mind, attentiveness to the present” (Bodhi, 1993, p. 16); it is the capacity of the mind to pay attention to the physical and mental events that surround the individual at the moment (Bodhi, 1993). Complementing this relatively specific definition of mindfulness is another description of that may be found in the Satipatthana Sutta, the Discourse on the Foundations of Mindfulness, which is considered the canonical Buddhist text with the fullest instructions on the system of the Buddha's mindfulness meditation. According to the Satipatthana Sutta, there are four objects of experience that one may be mindful of: the body and bodily sensations, feelings of pleasure or pain, consciousness, and mental objects. According to the traditional text, mindfulness of an object includes the ability to recognize and stay in touch with whatever arises within any of these experiential domains as well as ardency and clear comprehension. Clay work facilitates the perfect conditions for engaging in these four objects as the body, mind, and clay become unified and engaged. Two concepts emerge considering these two canonical texts and how they might relate to clay work, the first, how a mindful approach involves incorporating objects (clay) of which one is aware. What are we attending to? Is it the sensation of the clay as it responds to pressure and touch? Are we able to stay in the present, or has the mind uncovered a memory to which it wanders? Secondly, the quality of the awareness with which one perceives them. How are we attending to them? Are we able to let go of judgement of what the clay should be or how it should respond to our touch? Can we be with the clay with equanimity as it emerges as a surprise? We live in our heads for the majority of our

waking time, the act of kneading and shaping of clay brings a physical motion that can promote great concentration or to be present in the doing (Bankson, 2008).

Bishop et al. (2004) offers a definition of mindfulness comprised of two distinct components. First, that mindfulness involves the self-regulation of attention in the present moment so that mental faculties are more readily identified. The second component of mindfulness according to Bishop et al. (2004) is the attitude of openness or “a particular perspective to one's experiences that are taking place in the present, an orientation that is characterized by curiosity, openness, and acceptance” (p. 232). Clay as a responsive material invites curiosity, much can be observed if we stop giving our hands direction and observe with open awareness. The integration of traditional Buddhist definitions of mindfulness with contemporary psychological definitions of mindfulness come together to describe a meta-cognitive approach involving two interrelated levels of the construct and process. In working with clay, we can observe in tandem the sensorimotor responses as well as the direction of attention and awareness.

According to Goenka (2018), the aim of the practice of *satipatthāna* is to analyze the attachments to which we bind our self-identities or to our sense of “I.” The exploration of *satipatthāna* must take place on the experiential level, that is, not only on the intellectual level, but on the physical level. Using our hands in clay work opens this domain not only as the effort exerted, but in the physical feedback of the clay. We feel the pressure of the weight of the clay, the exchange of the moisture, the changing balance. Essentially, there are two distinct fields, which are the mind (*citta*) and the body. Goenka (2018) writes, “To experience reality, you must feel it. Therefore, there must be sensation, and *kāya* (body) and *vedanā* (sensation) go together in

this exploration” (p. 26). The process of pinching clay allows for the experiential process in which we can observe our reactions of the mind, the body, and the object of clay.

Vedanā, according to Goldstein (2016), refers specifically to that quality of pleasantness, unpleasantness, or neutrality that arises with the contact of each moment’s experience. These sensations can be experienced mentally or physically. The physical interaction of the hands on the clay may illicit a pleasant experience in the coolness, smoothness or scent of the clay. Conversely the experience may illicit an unpleasant feeling of frustration if the clay is dry or perhaps a resistance if it is too wet. Negative deep-seated emotions may reveal themselves through connections with interoceptive networks, or perhaps a pleasant visceral reaction can be unearthed during clay work. These feeling tones may change rapidly moment to moment. From the moment we hold a ball of clay we are invited to engage out of our chattering minds and into the present moment. Each turn and pinch of the clay affords the hands a physical sensation. The sensorimotor input of the body, or kāya, in relation to the clay is like a dance. We can breathe into the clay as we pinch, upon each exhale we rotate the clay in our hands. The posture of the body adjusts as muscles fatigue and the clay requires us to balance. The firmness and thickness of the clay communicates to the fingers to produce the right exertion of force in the pinching motion, or the reduction of force as the walls of the pinch pot become thin. To feel kāya, we must feel sensations and that is why vedanā is important. Goenka (2018) writes, “Everything that arises in the mind starts flowing with sensation on the body” (p. 26). Goenka (2018) suggests this is the essence of *samosaranā*, which means “it gets collected together and flows”(p.26). Similarly, according to Anālayo (2004) citta and dhamma also go together. Because what arises in the mind (citta) whether a thought or a craving, that is dhamma, whereas citta is the imagination or understanding. Dhamma is how experience or phenomena is lived (Anālayo,

2004). Mary Caroline Richards (1971) notes that our imagination (skill) in clay work develops when awareness in the hands is alive, continuously nurtured through balance in practice. “The feeling of our lives will be awake in our fingers. We befriend the clay. The clay befriends us” (Berensohn, 1972, p. 13). Much like meditation, as one is present with clay meaning, acceptance, and a sense of equanimity unfolds.

Zen Buddhist Clay Traditions

Clay has held a significant historical value in many cultures around the world. It has been used for its functional aspect, such as building material for creating vessels and structures. It has also been utilized to communicate beliefs, ideas and history through symbolic painting as well as sculptures such as fetishes. For Zen Buddhism, artistic engagement and appreciation are particularly effective means of communicating and transmitting its ideas. In ceramic arts, these concepts are particularly observable. A paper by Lomas et al. (2017) poses that the notion of *fukinsei* acknowledges and embraces one's irregularities. Nature is not perfect and in *fukinsei*, incomplete art and asymmetry is used to invite appreciation of imperfection. This is consistent with contemporary concepts of mindfulness, which emphasize nonjudgment and acceptance. The element of *koko* reflects Buddhist conceptions of form and emptiness and their interdependence (Lomas et al., 2017). The *wabi-sabi* aesthetic not only accepts the imperfect, but treasures it for its beauty and history, which connects it to the Japanese art of *kintsugi*, roughly translated as "patch with gold." In *Kintsugi*, broken pottery is repaired with powdered gold, silver, or platinum mixed with lacquer, thereby highlighting and enhancing its flaws Wardi-Zona (2019). *Kintsugi* celebrates brokenness, believing that the visible scar on the piece carries the story of its creation. Therefore, *wabi-sabi* and *koko* are characteristics of mindfulness' open, appreciative,

non-judgmental approach. People and things are accepted as they are, as they are imperfect, and with compassion.

The Role of Touch

The role of the hand is an important consideration in considering clay work as meditation. The density of nerve endings in our fingers are a conduit of information to our central nervous system (Wilson, 1999). Touch can only take place in the present moment and is an immediate action, such as hands touching clay. Working with clay involves expression through the hands with physical exertion and responsive effort. This work also involves mental processes through modeling, reflection, and observation of the clay formation. Lambert (2008) suggests that the motion of our hands is linked to the mental manipulation of our environment and interactions with others. The hand is the vehicle that carries out our intentions which is linked to our effort-based reward system. Lambert (2008) posits that through the application of physical work can positively affect our mental health through this reward system. (Lambert, 2008).

When we work with clay, external sensors receive input from our sensory organs, such as our skin. Our internal feeling is communicated via the interoceptors. Our interoceptors are located in the viscera, muscles, and connective tissue. Elbrecht and Antcliff (2014) observed that hands touching clay in a therapeutic setting stimulate exteroceptors and interoception, and every movement of the hands provides immediate feedback to the brain Cozolino (2006) notes that the skin contains two different types of sensory receptors. The first of these communicates with the somatosensory cortex, which is part of the cerebral cortex. These sensory receptors serve to perceive and manipulate objects. A second set of skin receptors is responsible for communicating with brain structures related to emotional touch and is connected to the social brain. When these

receptors are engaged in clay there is a flow of input and response between the brain, the body, and the clay. In contrast to verbal communication, haptic perception allows non-verbal access to both psychological and sensorimotor processes. The muscle movement facilitated by clay may bring up nonverbal feelings or body memories.

According to Anzieu (2016), human skin is an analogy for the ego. The ego is like the psychological skin that encloses the individual's mental content. Similar to the physical skin that surrounds a body, the ego functions as a mental skin that separates the outer from the inner. The ego also informs our experiences and communicates inner content and feelings to the outside world. Because of its tactile nature, clay work allows participants to experience these elements through their own skin. Clay envelopes, contains, and, grounds supporting a therapeutic space that enables containment, growth, and restoration. It invites exploration within by engaging the outer self through touch.

Deuser found in his work with the Clay Field in 1984 that haptic perception is also connected to object relationships, as the hands interact with each other and with the material (Deuser and Elbrecht 2012). A Clay Field is made up of a rectangular wooden box that holds approximately 22-33 lbs. of clay. A bowl of water is provided as well as paper towels. Hands are invited to explore this symbolic "world" in this simple setting. The set-up places emphasis on the process, not creating any sort of project. The Clay Field incorporates different therapies, including art therapy, Jungian symbolism, Gestalt therapy, and sensorimotor therapy (Elbrecht, 2012). Clay is a neutral material; it only reflects back what our hands project into it (Heimlich and Mark, 1990). Each mark made on the surface of clay acknowledges our presence. As the hands manipulate the clay, they perceive its textures and qualities; they grasp, grab, hold, and manipulate it. For work in the Clay Field, however, touch

provokes a sense of self-reflection: as I touch the other, I am being touched; as I leave an imprint, it reflects me. Clay fulfills basic developmental needs, such as the need to touch, to grab, and grasp. There is a freedom to find and discover rhythm through movement of the hands, body, and breath. Clay affords us the chance of discovery, to investigate within ourselves and to find balance (Elbrecht, 2012).

According to Elbrecht (2012) and Deuser (2004), touch can be distinguished into three core modes, which Deuser applied to his groundbreaking work with the Clay Field in 1984. Based on his findings, he identified three haptic object relationships: skin sense, balance, and depth sense. As defined by Deuser (2004), skin sense refers to the sense of touch with a flat hand. In the first year of life, this is primarily experienced within the infant-mother bond. Infants unintentionally reach for things, exploring the world for the first time, for example putting their hands on the breast. A caregiver communicates safety and love through the caressing and nurturing of their hands, as well as a state of being, that of being present with someone. The skin sense can be stimulated through applying cream or lotion on the hands and under forearms. Clay can also support self-nurturing impulses that may have been developmentally absent or delayed. Communication between the hands and between the right and left hemispheres of the brain refers to balance. The child learns equilibrium in relation to the presence or absence of nurturing caregivers. The more positive of the relationship the greater the sense of balance in the child (Elbrecht, 2012). This also demonstrates the role mirror neurons play in positive reinforcement in self-regulation, executive function, emotional regulation, and attachment theory (Matto et al., 2013). In the Clay Field this connection or disconnection is projected as symmetry or asymmetry. Deep sensibility refers to the hands, which penetrate the clay, manipulate it, squeeze it, dig it out, and build. The development of depth sensibility is closely linked to the

development of ego consciousness, the ability to handle the world. One manifests this as an individual with an intention and an active approach to the world around them. The Clay Field can be useful in engaging regression therapy or simply explore the movement of clay in a defined space.

The brain is much like a piece of clay in its neuroplasticity as it responds and changes to experience. Lusebrink (1992) attributes sensorimotor components primarily to the limbic system which contains the components for processing emotions, memories, and survival instincts (Guy-Evans, 2021). The limbic system is sensitive to trauma, yet it is also responsible for restoring the body's balance and regulation., Functional and structural changes have been observed in the brain as the field of mindfulness and meditation have been studied. Attention and memory, interoception, and sensory processing, as well as self- and auto-regulation have been responsive to meditation and mindfulness practices (Esch, 2013). Interacting with clay stimulates both external and internal sensations as well as kinesthetic experiences of movement and energy transfer.

Attention and Awareness

Clay has richer mineral content than mud, which makes it malleable, and can be shaped, stretched, pulled, and pinched. The tactile nature of clay can serve as an anchor or an object to return our attention to in meditation. Gunaratana asserts that “Concentration is a strong energetic attention to one single item”(p. 70), this active function of handling clay is similar to the function of the breath in Vipassana meditation. The act of pinching clay, for instance in creating a pinch pot or open vessel, is a technique that can serve as a point of concentration. The dynamic nature of clay, can inspire focused awareness as the body responds to its’ constantly changing nature as the clay is influenced by touch. Mind wandering may be thwarted by this ongoing dance between

the clay and hands. The act of pinching and shaping clay leaves little room for mind wandering and inattentiveness. This present moment attunement between the hand, clay, and mind is what Joseph Goldstein (2016) describes as the “opposite of absent-mindedness” (p. 13), a state of wakeful presence. Shaping clay offers a focus of bare attention, serving as a hands-on anchor in which to simply see and feel.

Attention and awareness can both be viewed from different perspectives, which creates a complex relationship. Koivisto et al. (2009) observed the independent contributions of different types of visual attention and awareness to electrophysiological responses of the brain. Their research focused on spatial attention, nonspatial selection of objects, and visual awareness. The results indicate that electrophysiological indicators of consciousness correlated with an experience and was dependent on spatial attention. The results suggest that spatial attention, or attention away from vision is important for the internal representations of space that provide the agency for experience (Koivisto et al., 2009). According to the study, the indicator of experiential consciousness evolved independently of nonspatial selection of objects, however it was modified by it later on. Spatial and nonspatial attention affected the working memory, processing and reflective stages that occurred during experiential consciousness. According to these results, when describing the relationship between attention and awareness, it is important to distinguish between different types of attention and different forms of awareness. In mindfulness-based experiences, this may show up as full or partial awareness of the sense doors or attention on objects.

The State Mindfulness Scale (SMS) was developed and tested by Tanay and Bernstein (2013) as a new conceptual model to measure the state mindfulness instead of describing attributes of traits of behavior in other studies. This SMS reflects traditional Buddhist and

contemporary psychological science models of mindfulness not found in existing measures of the construct. Tanay and Bernstein found that prospective multilevel modeling demonstrated elevated SMS in the context of mindfulness practice specifically. Their findings posed that this may be a unique and useful tool for contributing to the conceptualization and measurement of mindful states. This tool may highlight to what and how we pay attention by analyzing objects of awareness and how they are perceived.

Wardi-Zonna (2019) describes how clay work illustrates the perpetual want and dissatisfaction as potters work toward an ideal and face challenges along the process. The fluid form of clay highlights the virtues of contentment as one accepts the form as it is to move on to facing the next task or challenge that emerges from the clay, the wheel, the tool or the hand. This immersive experience in shaping clay invites acceptance. Acceptance is taken toward each moment of one's experience in moving with the clay and taking in information without attaching a story or a goal. Roemer and Orsillo (2002) define acceptance as being open to the present moment's reality. This involves abandoning one's agenda and allowing current thoughts, feelings, and sensations (Hayes et al., 1999). It relies on the participant's willingness to let go and accept what emerges with an attitude of openness and receptivity to whatever happens in their field of awareness. Mindfully engaging with clay can provide a process of relating openly with tactile, sensory engagement through touch. The response of clay invites a reciprocation of the hands, the adjustment of fingers, the engagement muscles of the arms, perhaps a shift in the posture of the body. The pillar of patience can be observed as the shaping of clay unfolding in its own way and its own time.

The cultivation of mindfulness, which involves being present and nonjudgmental, has positive effects on well-being as well as on psychiatric and stress-related symptoms. In a

laboratory study by MacLean et al. (2010) studied perceptual sensitivity and sustained-attention over time, five hours a day for three months. The participants chose the stimulus upon which they would focus, such as breath, during their meditative practice. The study found that experiences in meditation can enhance internal awareness, which allows meditation practitioners to observe their mental processes with increased clarity and resolution (MacLean et al., 2010). As meta-awareness develops, the meditator becomes aware of the process of a sense of self repeatedly arising. As a form of conscious experience and executive monitoring, meta-awareness involves a nonconceptual perspective that directs attention to the contents and processes of the present moment (Holzel et al., 2011).

Previous Studies of Clay Work and Mindfulness

Research from Sholt and Gavron (2006) highlighted six key elements supported by clay work including: support of the expression of emotions, opportunity to experience release from strong emotions, rich and deep opportunity for self-expression, encouragement of verbal communication, accessibility to unconscious material, and an outlet to create concrete symbols. Sculpting clay can provide a way to create concrete representations of self, others, and relationships. The three-dimensional nature of clay provides a rich opportunity to communicate without words. Clay can provide opportunity to reflect and process their own self-identity through construction and deconstruction activities with clay. Clay can be used as a way to process themes such as grief or loss, as well as to explore regression exercises (Rubin, 2005).

According to Weng et al. (2021) and Xu et al. (2014), meditation with long periods of focus on breath sensations increases the neural activation of interoception networks, which includes the insula, and decreases engagement of the default mode network, which supports self-reflexive processing. Farb et al., 2007 also found increased insula activation when attending to

momentary experience for individuals who had engaged in a mindfulness-based stress reduction program. Activation of the secondary somatosensory area was also found to be increased (Farb, 2007) which is important for processing exteroceptive sensory events, which can include touch.

A single subject investigation by Vespini (2019) sought to explore the possible connection between clay work and components of mindfulness using the State Mindfulness Scale for Clay Work (SMS-CW) tool. Data collected using the SMS-CW were analyzed using a side-by-side comparison to determine whether the researcher's self-reported experience of working with clay was related to the mindfulness elements listed on the SMS, and to what extent. During the study, the researcher focused on mental or physical sensations in the moment, or both, and how she remained aware of those physical sensations. The researcher observed increases in the SMS-CW mindfulness scores from session one through session three, with a total increase of 14 points, at the conclusion of this three-week long study. Furthermore, results also showed that the experience of mindfulness in the body increased from session to session, supporting the use of clay work as a viable mindfulness-based activity. According to the subjective experience of the researcher, clay work is a more mindful experience if it focuses on the process rather than the end product.

Clay has long been utilized in the field of art therapy. Several recent studies on clay work have demonstrated the reduction of stress and the positive impact on mental health. A recent study by van Lith et al. (2020) focused on college students using a 5-week online format in which twelve undergraduate students participated in mindfulness-based art therapy (MBAT) or a neutral clay task (NCT). Pre- and post-test interviews following their involvement in MBAT and NCT both elicited relaxation and calming effects according to participants. The efficacy of clay

experiences delivered through an online platform seem to demonstrate the extraordinary features of the material to support mindfulness.

Beerse et al. (2019) developed a mindfulness-based art therapy (MBAT) program for college students using clay that was also facilitated over an online platform. The format of the intervention began with one “challenge” that the researcher facilitated in-person, with participants on the first week of the program. Eight independent “self-care challenges” followed the initial session . The self-care challenges were short, 15-min, using MBAT directions. The directives included a brief mindfulness practice like yoga or meditation with an accompanying clay-based art directive. The study took several measures of stress, anxiety, and depression levels. Stress was also assessed on a physiological level using saliva samples and enzyme-linked immunosorbent assays (ELISA). An assessment of perceived stress levels was conducted pre- and post-self-care activities each week using the Sheldon Cohen PSS-10 to assess the severity of anxiety symptoms. A brief self-report measure, the GAD-7 was used to distinguish symptoms of anxiety from depressive symptoms. Findings demonstrated that some weeks demonstrated more significant reduction on PSS and cortisol levels. Those marker weeks were the initial meeting directed by a therapist, the week focused on restoration and the week focused on gratitude. As a result of these findings, an online MBAT program using clay coupled with mindfulness-based practices proved to be impactful on participants.

Conclusion

Clay holds a historical, biological, and cultural link to humans, making it a meaningful material to investigate in the growing field of mindfulness. It is a natural tendency for humans to make something with clay given its three-dimensional nature and its ability to be shaped into forms of representation and function. Paulus Berensohn (1997), a pioneer of hand building with

clay once said, “You can take it as it comes, or you can set yourself tasks in order to develop strengths. Technique by itself leads to dead ends. It comes alive through a person, when it is from a living source” (p. 11). How one interacts with clay can open us to moments where we are fully present with our awareness and senses. We can follow the nature of the clay working outwardly while observing our inner-self as thoughts and feelings arise and fade away.

Nondirective open awareness similar to the ancient Indian practice of the vipassana tradition of meditation can allow for the observation of the inner self. Through this nonjudgmental, self-observation, there is the opportunity for self-transformation. Berensohn (1997) highlights that the discipline of clay equips us to not do what we may want to do, but what we need to do. The clay may crack and we may need to balance moisture or it may tear if the walls are too thin. The clay may slump with its’ weight or crash as we transfer a creation. The change in physical characteristics of the clay interacting with our own hands informs our responsiveness. The visceral stimulation brought on by interoception may bring buried emotions to surface. This is an opportunity to observe these emotions emerging in the present and return our attention back to the clay.

Lastly, clay could serve as a companion to contemplation as a physical anchor that guides the participant to be present with the material. The lessons of non-judgment, impermanence, non-self, and right mindfulness are observable in clay work. We are like clay in many ways. We need to be malleable like clay so that we are able to adapt and grow with the ever-changing world around us. We must open at different stages of our lives responding to external influences much like the pinch pot, all while being defined by our inner space (our center). Thich Nhat Hahn (2014) wrote “Most people are afraid of suffering. But suffering is a

kind of mud to help the lotus flower of happiness grow. There can be no lotus flower without the mud” (p. 13).

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Creative Project: An Exploration of Clay As a Mindfulness-Based Practice

In order to demonstrate the efficacy of clay as a mindfulness-based practice, the author hosted a retreat which included a variety of contemplative practices which incorporated clay. Documentation of the event and resources can be found at <https://cwilli480.wixsite.com/from-mud--mindfulness>. Participants moved between practices with mindful body breaks. The retreat was held at the Rio Grande Nature Center, which is a New Mexico State park. Mindfulness practices were held in a classroom setting as well as outdoors in the forest setting. Participants moved through individual and group practices in silence and were invited to share aloud reflections in dialogue following each practice. Paper and pencil were also provided to record any thoughts or ideas as they moved through the retreat. The environment was set up with great care in regard to stewardship of space and materials. Each participant was welcomed with a defined space to work, an apron, drinking water, a moist sponge, paper, pencil, pre-portioned clay, and a handout of the agenda. Back ground music was used during welcoming and warm up.

Introduction:

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/from-mud-mindfulness-found-in-clay-work>

Participants were greeted and we set shared agreements for the retreat. This included confidentiality, freedom to fulfill needs, amongst others. I communicated that the meditations were offered as invitations and that they could modify or ask for support to best accommodate their experience. Participants had signed permissions for recording and photography. An agenda was provided and reviewed. We also reviewed the items in their place setting so they knew what tools they had access to. We went around the room with introductions and a two-word check in.

The retreat began with a land acknowledgement for both the space and the clay used to pay tribute to the original inhabitants whose land we used.

Practice 1: Grounding Pinch Pot Breath

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/grounding-breath-and-pinch-pots>

A simple, focused, individual practice was to create a pinch-pot, inspired by the work of Berensohn (1997). This practice utilized the technique of creating an opening while observing the breath and body. We began with a ball about the size of a lemon. Next, we begin opening the ball with an inhale and then by inserting a thumb to the center with an exhale. Then by slowly rotating the clay in the palm and pinching the sides, the clay begins to widen and responds to the pressure, rotation, and support of the hands. We found a rhythm of inhaling, pinching with an exhale. This practice invited open awareness, observation, and the notation that the opening of the pinch pot symbolizes a center in which external forces change the walls of the clay. A participant made an observation during reflection of their bowl to be a reminder of a begging bowl, which was an interesting parallel to a necessary vessel for the nourishment of life.

Practice 2: Collective Breath

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/collective-breath>

A poem invited the group to share their collective voice by reading around the room. This group practice invited observation of breath inspired by Weng et al. (2021) and Xu et al. (2014). The guidance of the practice included humming and chanting while working clay into a pinch pot. In order to keep the practice secular, the chanting involved a resonance activity warm up for singers that utilizes the primary vowel sounds. The use of these vowels allow the exploration of the extremes of the horizontal and vertical position of the mouth before producing a consonant

(Weinzimmer, 2018). After the practice participants were encouraged to observe any differences in the first and second pots. During reflection a participant brought up feeling a sense of harmony with the group. Another participant shared their pot was more open and they had felt rhythm in creating the piece.

Practice 3: Clouds and Clay

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/clouds-and-clay>

The third practice brought participants outside where they were invited to look at the clouds while kneading and shaping their clay. This practice inspired by Koivisto et al. (2009) introduced the visual element to add to the tactile work. In addition, this served as a neurobic exercise inspired by Katz and Rubin (1998). A neurobic exercise pairs senses to activate underused neural pathways. Thus, by pinching clay and observing elements of nature, two senses are being utilized in ways they may not have utilized before. In addition, participants elected to take a mindful walk with their clay companion. Participants were observed making imprints on their clay, exploring drying and wetting, and picking out rocks from dropped clay. Participants were invited to take note of how the outdoor setting informed or guided their work. Some replied that they were inspired to make representations, others noted how the environment impacted their exploration. Each shared that they had a greater awareness of how their senses interacted and a general report of slowing down with more attention of their surroundings. The topic of motherhood was also brought up. Participants discussed the Earth as a mother, but also the parallels in the effort driven reward system of the brain that is stimulated by being a mother.

Practice 4: Clay R.A.I.N.

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/r-a-i-n-with-clay>

While open awareness serves as a wonderful way to engage in meditation with clay, using clay as an extension of guided meditation can also be deeply meaningful. The R.A.I.N method (Brach, 2019) is a good match for guidance and being present with clay. R is to *recognize* what is happening. Clay affords us the opportunity to explore our sense doors and recognize how we are responding to the clay. A is to *allow* life to be just as it is. We need not strive to force the clay or wish for it to be different, rather accept it just as it is. I is to *investigate* experience with gentle and curious attention. Instead of cognitive or mental exploration, opening to our embodied experience in connecting and responding to the clay with touch, breath, and movement. N is for *nurturing*, with the clay we can move our energy, visualize our vulnerability, and work to send compassion and love to ourselves. R.A.I.N. helps us to transform thoughts with a healing presence by de-conditioning habits and limiting self-beliefs. Using the R.A.I.N. method while holding and manipulating clay can help us cultivate compassion with the opening of our interoceptors through sensorimotor work.

Practice 5: Dialogue with Clay

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/dialogue-with-clay>

The practice of pinching not from a ball, but from a flat slab with the eyes closed offers a unique sensory perspective. Bankson (2008) encourages the offering of prompts to have a conversation or to create a dialogue with the clay as it is being pinched. Participants in the retreat were given a flat slab of clay in which to work. Prompts were suggested such as write a letter, create a gift, or write a poem, among others. Participants were invited to write after the experience if they wished to record their dialogue, story, or poem.

Practice 6: Mettā With Clay

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/metta-with-clay>

This closing practice to the retreat involved the loving-kindness instructions from Salzburg (1995). Participants gathered in a circle of chairs to honor the community of the retreat. This practice was offered as a way to symbolize and close with a meditation highlighting the interconnection to all beings. It was also offered to cultivate compassion for self and all other beings. While holding clay, we reflect on the shared existence of all creatures as well as the link to our shared origination of stardust.

Closing: Re-Clayming

<https://cwilli480.wixsite.com/from-mud--mindfulness/post/reclayming>

Once our closing reflections were complete, I invited participants to smash their vessels and creations in a practice of non-attachment and a symbol of impermanence. Smashing their vessels and wedging the clay signifies a transfer of energy to the clay that will go on to touch another, much like the molecules of air we breathe. An alternative was offered to participants who may have experienced attachment to their pieces. The invitation was extended to mark their pieces and take them home or to photograph. Vessels can be placed in an outdoor space in their unfired state to return to the Earth with rain or to be remoistened with water to continue work. The outcome was dependent on the participant and the need fulfilled by the participant.

