

## ABSTRACT

Title of Thesis: UNTANGLING THE SEA OF TREES: AN  
ARCHITECTURAL ANALYSIS OF THE  
IMPACT OF THE BUILT ENVIRONMENT  
ON SUICIDE RATES IN JAPAN

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Resulting in over 30,000 mortalities every year, suicide ranks as the number one cause of death for young adults in Japan. Extreme stress at work, Stigma surrounding mental health, and congested urban conditions cause hundreds to see the Aokigahara Suicide Forest as their only option. With its increased notoriety as the second most visited suicide location in the world, how can we utilize biophilic design, traditional Japanese construction methods, and Zen Buddhist philosophies to reduce work stress, and prevent depression, and help individuals untangle the sea of trees?

UNTANGLING THE SEA OF TREES: AN ARCHITECTURAL ANALYSIS OF  
THE IMPACT OF THE BUILT ENVIRONMENT ON SUICIDE RATES IN JAPAN

by

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## Foreword

This thesis will discuss many intense mental health subjects including anxiety, depression, and suicide. Although being presented in an academic format, these subjects may still be upsetting to some. If you are currently suffering from any of these conditions, please proceed with caution, and if in crisis, please contact the US National Suicide Helpline at 988.

## Dedication

This thesis is dedicated to the many friends and family members who have loved and supported me through not only this thesis, but also through my personal mental health struggles. I truly would not be here without their encouragement, love, and assistance.

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# Chapter 1: The “Tradition” of Suicide in Japan

## Section 1: Introduction

After an act of unforgivable dishonor, the disgraced Samurai Asano Naganori was given two options, be further disgraced through public execution, or regain some honor through ritualistic suicide.<sup>1</sup> With little option, Asano grasped the short tantō sword and swiftly sliced the blade from left abdomen to the right -ending his life in one, final act of “heroism.”<sup>2</sup> This unbelievably brutal practice may seem like a distant history isolated to the pages of Japan’s dark past; many of the cultural, social and moral ideals that inspired these acts can still clearly be seen within the cultural landscape of today.<sup>3</sup> These ideals of honor, loyalty, and self-deprivation still have immense impact on the modern perception of mental health in Japan.

Historically, seppuku (Japanese for “self-disembowelment”)<sup>4</sup> was a part of the Samurai Bushidō warrior code and was seen as an honorable form of suicide that exemplified courage, self-discipline, and resolve.<sup>5</sup> Many of these ideals -though desirable on their own, still inspire thousands of suicides to be completed across Japan every year. It is estimated that over 30,000 suicides are completed in Japan annually,<sup>6</sup> causing three times more deaths than vehicular accidents<sup>7</sup> and featuring as the number one cause of death for young adults.<sup>8</sup> But what is the root cause of this

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<sup>1</sup> The Editors of Encyclopedia Britannica 2019

<sup>2</sup> Ibid

<sup>3</sup> Ibid

<sup>4</sup> Ibid

<sup>5</sup> Ibid

<sup>6</sup> Kitanaka 2012

<sup>7</sup> Ibid

<sup>8</sup> Kitanaka 2012

epidemic? What are the cultural, economic, and individual reasons that contribute to this issue? And why do so many individuals consider suicide as their only honorable option?

To fully explore why suicide has become an ingrained “tradition”<sup>9</sup> in Japanese culture, we must first look at the ethical ideals that have created the environment for this practice to thrive. In many, less extreme ways, the ideals behind the honor-based society of the Samurai are still present and flourishing as the cultural norm in Japan today.<sup>10</sup> And -although it has many positive attributes (such as honesty, chivalry, and selflessness), negative by-products such as perfectionism, the fear of bringing shame to one’s family, and the cultural pressures to succeed, all contribute to the underlying culture of shame in Japan.<sup>11</sup> While most western cultures promote ideals of individuality, Japan has a cumulative society where the “greater good” is always encouraged over one’s individual desires.<sup>12</sup> This mentality is the primary contributor to the extremely low crime rates and high quality of life in Japan.<sup>13</sup> However, it is also the underlying reason for the high suicide rates seen throughout the country.

## Section 2: Karo ji-satsu (Overworked Suicide)

Burn-out is sighted as the number one reason for sick-leave in Japan.<sup>14</sup> It is so common within Japanese work culture, that multiple terms have been coined to describe this phenomenon. Karo Ji Satsu, literally translates as “overworked

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<sup>9</sup> Chen, Choi, and Sawada 2009

<sup>10</sup> Rayhan, Abu 2023

<sup>11</sup> Ibid

<sup>12</sup> Kitanaka 2012

<sup>13</sup> Ibid

<sup>14</sup> Ibid

suicide,”<sup>15</sup> and refers to the act of working oneself into the grave. To a slightly less extreme extent, Karo Utsubyo translates as overworked depression<sup>16</sup> and refers to the act of working oneself into a state of stress and burnout. Although depression often leads to suicidal ideations, overworked depression is often perceived as an honorable, almost desirable state of being.<sup>17</sup> To many, being in a state of Karo Utsubyo means that you are committed to your work, to the point of prioritizing your community and profession over your own, personal health. Anxiety is often a key contributor to this workaholic mentality. Fear of not reaching one’s full potential is a common occurrence, but even more frequent, is the fear of economic failure.<sup>18</sup> This issue became especially prevalent during the economic recession of the 1990’s in Japan.<sup>19</sup> During that time, some of the highest jumps in suicide rates were seen.<sup>20</sup> And although the economy has since recovered, the suicide mortality numbers have continued to reflect this statistical pattern.<sup>21</sup>

But despite the huge impact suicide has on overall mortality rates, it remained largely ignored until 2000,<sup>22</sup> when Dentsu -the largest marketing firm in Japan<sup>23</sup> was sued for their hand in one of their employees’ tragic deaths from suicide.<sup>24</sup> The Japanese Supreme Court found that -although Dentsu did not have a direct hand in the employee’s decision, they had created a toxic work environment that encouraged

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<sup>15</sup> Kitanaka 2012

<sup>16</sup> Ibid

<sup>17</sup> Ibid

<sup>18</sup> Chen, Choi, and Sawada 2009

<sup>19</sup> Kitanaka 2012

<sup>20</sup> Ibid

<sup>21</sup> Ibid

<sup>22</sup> Ibid

<sup>23</sup> Ibid

<sup>24</sup> Ibid

depression and provided no preventative or treatment assistance.<sup>25</sup> Although tragic, that case did bring to light a disorder which had been largely ignored in Japanese culture previously. In fact, mental health in general, was long perceived as a taboo subject within Japanese culture. Instead of prioritizing mental health in daily life, the practice of psychiatry was reserved for the severely mentally ill, and those perceived as deviant from the norm.<sup>26</sup> Often, depression was seen as a conscious choice,<sup>27</sup> and therefore not in need of professional intervention. The biological factors of mental health took years to be accepted<sup>28</sup> and are still often overlooked in modern Japanese society.

### Section 3: Death of the Youth

Although the younger generations in Japan have begun to prioritize mental health more than any previous generations,<sup>29</sup> the years of ingrained misconceptions are difficult to reverse. In fact, young adults in Japan are currently one of the most affected demographics<sup>30</sup> -with suicide as the leading cause of death in men aged 20–44 and women aged 15–34 years<sup>31</sup>. The reason for these startling numbers is directly tied to the previously mentioned factors of perfectionist-based expectations, lack of mental health education, and extreme urban environments. Additionally, suicide rates are often predetermined by other mental health ailments. Of those who commit suicide in Japan, over 60% had been treated for depression prior to their suicidal

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<sup>25</sup> Kitanaka 2012

<sup>26</sup> Ibid

<sup>27</sup> Ibid

<sup>28</sup> Ibid

<sup>29</sup> Ibid

<sup>30</sup> Burke et al. 2016

<sup>31</sup> Ibid

tendencies.<sup>32</sup> Therefore, depression can be seen as an early warning sign of suicide and is worth considering when determining an individual's suicidal predisposition. Common causes of depression are sighted as: health related issues, family situations, and stress. With over 49% of individuals reporting stress in their day-to-day lives,<sup>33</sup> the commonality of this factor is significant and can be seen as a direct influence on suicide. Because of this, stress should be carefully considered when discussing suicide -especially in Japan.

Of the possible causes for stress, work is the common denominator in many of the top reason.<sup>34</sup> Long hours, fear of job loss, and pressures to succeed are some of the most common contributors reported<sup>35</sup> and all reflect the influence that work culture has on mental health. Additionally, low decision authority, and a general feeling of work desperation have been shown to significantly contribute to this stress<sup>36</sup> as users often feel hopeless when they do not have (or feel that they do not have) control over their own circumstances.

#### Section 4: The Sea of Trees

While stress and resulting suicide rates are a global issue, it is especially many young, Japanese professionals. Once an individual sees no hope in their circumstances, individuals are more likely to see suicide as their only option for a “way out”. Tragically, this is the case for dozens of young professionals in Tokyo,

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<sup>32</sup> Nakao, Takeuchi, and Yoshimasu 2008

<sup>33</sup> Ibid

<sup>34</sup> Ibid

<sup>35</sup> Ibid

<sup>36</sup> Ibid

who find themselves drawn to the Aokigarara Suicide Forest.<sup>37</sup> Located just a three-hour bus ride from Tokyo, “The Sea of Trees” has become the second most popular suicide location in the world (following only the Brooklyn Bridge).<sup>38</sup> Its proximity to such a dense urban landscape, makes it an unfortunately convenient place for one to contemplate suicide, while the density within the forest itself, makes it the perfect environment for individuals to find the isolation needed to complete the act. Highly stressed, chronically overworked, and socially isolated young professionals, seek the suicide forest for its isolation, seclusion, and silence. And although those attributes could be seen as positive factors, they create the perfect environment for one to consider and complete suicide without being interrupted. Instead of being reviled for its natural beauty, the Aokighara forest has gained notoriety as the suicide capitol of Japan.

Usually, the journey to this natural private oasis begins within the landscape of the urban jungle. Hopeless individuals -weighed down with stress and camping gear, utilize their weekends as opportunities to take a one-way train or bus from Shinjuku station to Kawaguchiko Station just outside of Aokigahara.<sup>39</sup> Upon arrival, individuals are met with signs declaring “life is precious,” and “think of your family”. However, this signage is almost always too little too late. Abandoned campsites are a common site within the forest, and pieces of red twine can be seen tangled around the thick foliage. These sites are a morbid reminder of the forest’s dark notoriety as individuals often utilize these strings as a way of finding their way back to the world

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<sup>37</sup> Lynes, Kelly, and Treadwell 2023

<sup>38</sup> Ibid

<sup>39</sup> Lynes, Kelly, and Treadwell 2023

beyond the forest -allowing search parties to follow the path, and return their bodies to the morning families.

Unfortunately, many of the factors that contribute most to the forest's beauty, are also what make it a desirable place to commit suicide. The density of the trees muffles noise, creating an almost overwhelmingly silent environment for individuals to contemplate their decision. The volcanic geology of the region creates strange rock outcroppings perfect for individuals to hide beneath while acting upon their decision. And finally, the thickness of the undergrowth makes it difficult to see beyond a few dozen meters, affording the type of privacy one would desire to complete this act. Unable to see past the trees both physically and symbolically, over 100 individuals end their lives beneath the canopy of the forest every year.<sup>40</sup>

### Section 5: Conclusion

Although government intervention has attempted to prevent these suicides, little actual results have been seen. Attempts to increase signage, reduce the notoriety of the forest, and even restrict entry completely, have all proven to be fruitless.<sup>41</sup> To disrupt this narrative, a combination of interventions are needed to act as both preventative and restorative measures, to assist in preventing these issues from occurring, and treat these issues when prevention proves insufficient.

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<sup>40</sup> Kitanaka 2012

<sup>41</sup> Lynes, Kelly, and Treadwell 2023

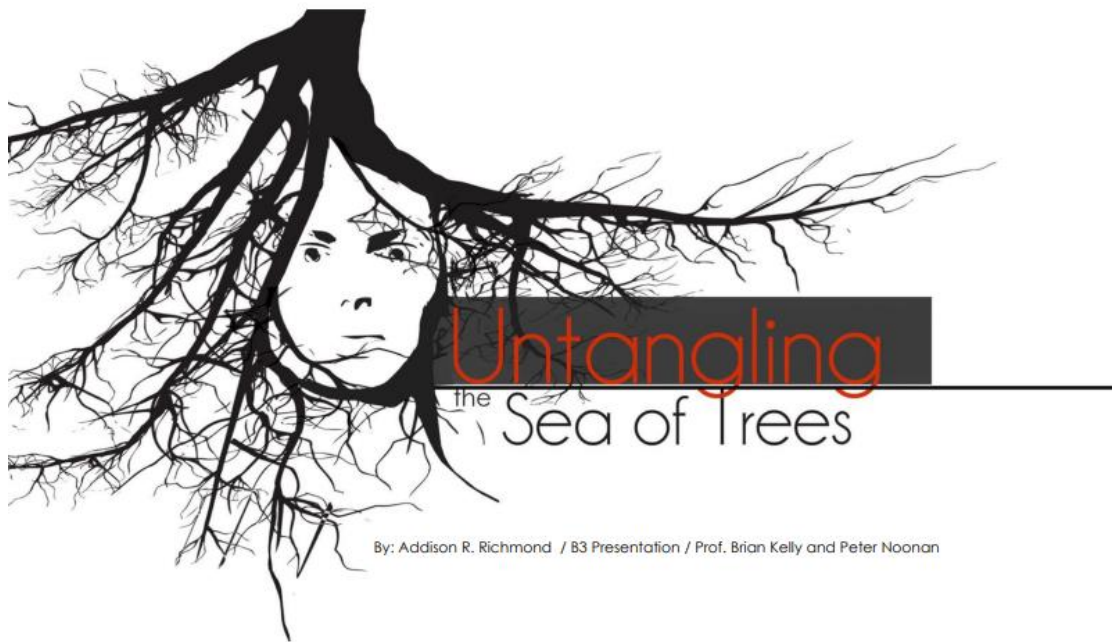
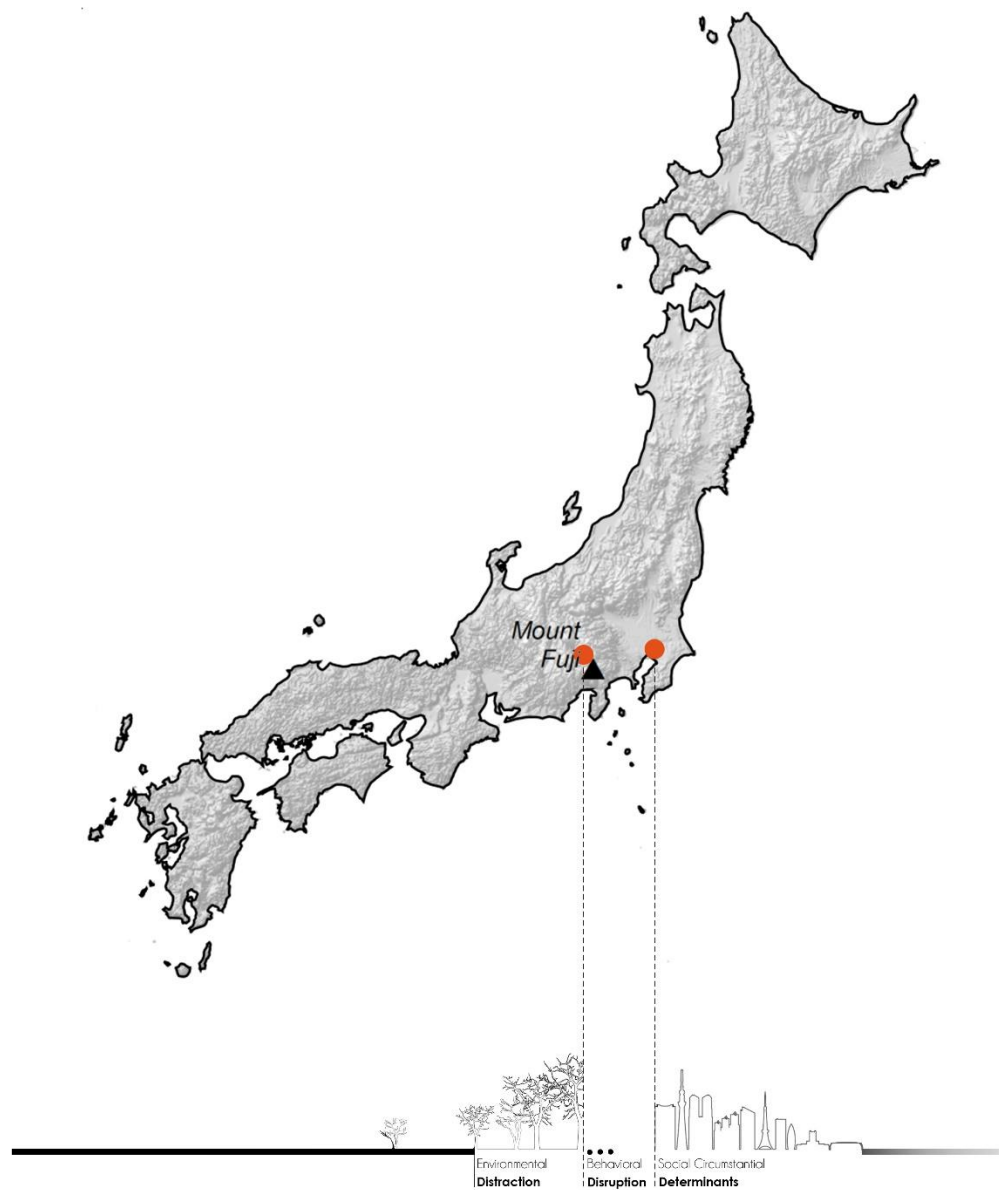


*Figure 1: Tittle Page, 2024*



Resulting in over 30,000 mortalities every year, suicide ranks as the number one cause of death for young adults in Japan. Extreme stress at work, a lack of mental health education, and an intense honor-based society, cause hundreds to see the Aokigahara Suicide Forest as their only option. How can we use the built environment to **deter** this thinking, **disrupt** the suicide pattern, and **distract** the user away from the Aokigahara forest -untangling the sea of trees?

*Figure 2: The Journey to the Forest, 2024*



Figure 3: Shinjuku Station, 2024



Figure 4: Kawaguchiko Station, 2024 Figure 5: Bus to Aokigahara, 2024



*Figure 6: Warning Signs at Aokighara Forest, 2024*



*Figure 7: Aokighara Forest A, 2024 Figure 8: Aokighara Forest B, 2024*

## Chapter 2: Nurture, Nature, or Environment

### Section 1: Environment as a Study of Psychology:

Stretching back to the times of Ancient Greece, the debate of nature versus nurture has sparked ferocious debate within psychology.<sup>42</sup> While Francis Galton utilized Charles Darwin's theory of evolution to support his ideas that all humans were born predisposed to certain behavioral and psychological outcomes, Ivan Pavlov and his dog, associated behavior to classical conditioning, and the theory that behaviors are primarily learned reactions. However, the more recent study of environmental psychology,<sup>43</sup> offers a modified perspective to the classic conundrum, and suggests that our environments considerably contribute to both our genetic predisposition, and our learned conditioning.<sup>44</sup> As such, the answer to the question of nature versus nurture, is both. And since our environments contribute to each, it is imperative for us to investigate not only how our environments affect us, but how architects (as the key designers of environments) can create spaces that encourage positive behaviors and mental health.<sup>45</sup>

The study of environmental psychology is relatively recent compared with other subcategories within psychology.<sup>46</sup> Popularized in the 1960's<sup>46</sup>, the journal of environmental psychology defines it as "The scientific study of the transactions and

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<sup>42</sup> Psychology Today 2022

<sup>43</sup> Osama 2019

<sup>44</sup> Łabuz-Roszak, Bil, and Gorczyca 2018

<sup>45</sup> Gifford 2014

<sup>46</sup> Osama 2019

interrelationships between people and their surroundings”.<sup>47</sup> It is based on the idea that our environments directly impact our behaviors, and our behaviors directly impact our surrounding.<sup>48</sup> Psychologist Robert Gifford asserts that “Psychology had rarely extended its concern to the physical setting of behavior; for the most part, the discipline proceeded in its investigations as if people acted and interacted nowhere, in a black void.”<sup>49</sup> Although it is often overlooked within the psychological community, recent research has shown that our environment has more of an impact on our health than we typically assume,<sup>50</sup> and therefore, it is something that we should be paying more attention to.

Genetics only makes up for 22% of the factors contributing to our health.<sup>51</sup> The other 88% is directly linked to our environment, behavior, medical care, and social circumstances.<sup>52</sup> Within each of these factors, the organization and design of the built environment is both directly and indirectly linked to the outcome of these contributors. Although less obviously linked, social circumstances are indirectly related to the built environment, as things like civic participation, feelings of isolation, and work conditions,<sup>53</sup> are all intrinsically linked to the urban landscape and how we organize the spaces around us. Similarly, In the case of medical care, the distance to medical resources is a key factor.<sup>54</sup> Making up 43% of our health contributing factors,<sup>55</sup> environment and individual behavior are behaviorally linked to

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<sup>47</sup> Devlin 2018

<sup>48</sup> Osama 2019

<sup>49</sup> Łabuz-Roszak, Bil, and Gorczyca 2018

<sup>50</sup> Gifford 2014

<sup>51</sup> Ibid

<sup>52</sup> Choi, Edwin, and Juhan Sonin 2024

<sup>53</sup> Ibid

<sup>54</sup> Ibid

<sup>55</sup> Ibid

each other,<sup>56</sup> and -even more obviously linked to the built environment. From a physical level, individual behaviors like the foods we eat, the amount we exercise, and the hours we sleep are all obvious contributors to our health.<sup>57</sup> Similarly, our mental behaviors, like self-efficacy, life satisfaction, cognitive function, and overall mental health are just as significant to our physical health.<sup>58</sup> Depression and stress are especially significant in this area as recent research has found that depression has a higher impact on your life expectancy, then heart disease, diabetes, or hypertension.<sup>59</sup> And with depression prevalence increasing every year (the past 25 years has seen a 70% increase),<sup>60</sup> this issue will continue to contribute to the global mental health crisis.

With such an international impact and a strong prevalence (10-15% Percent of individuals),<sup>61</sup> we must consider the contributing factors to depression, and what preventative measures can be taken.

### Section 2: Depression and Suicide on the Global Scale

Depression rates continue to rise annually on the global scale, but especially since the pandemic. And since individuals dealing with depression are twenty times more likely to attempt suicide then non-affected individuals,<sup>62</sup> these increasing rates directly relate to global suicide numbers, which is estimated to globally take the lives

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<sup>56</sup> Ibid

<sup>57</sup> Łabuz-Roszak, Bil, and Gorczyca 2018

<sup>58</sup> Choi, Edwin, and Juhan Sonin 2024

<sup>59</sup> Ibid

<sup>60</sup> Ibid

<sup>61</sup> Osama 2019

<sup>62</sup> Nabeshima and Kim 2013

of over 700,000<sup>63</sup> individuals every year. Of this astronomical number, a significant 30,000 victims of suicide are from Japan<sup>64</sup>. But even with these extreme numbers, Japan is not even in the top ten countries for suicide rate per capita. While Japan has a startling 17.6 suicides per 100,000 people<sup>65</sup>, South Korea has almost double the amount with 25.2 suicides.<sup>66</sup> The significance of the suicide rates in Japan is less to do with the overall statistical prevalence, but instead is significant due to the demographic group affected. While the vast majority of countries see high suicide rates in the elderly and those with chronic illnesses, Japan's rates are significant because the vast majority of victims are young professionals, causing suicide to be the number one cause of death in young adults<sup>67</sup>.

### Section 3: Stressed and Depressed

Although genetics makes up for around 30% of the factors contributing to depression,<sup>68</sup> much like health in general, environmental, and behavioral factors are much higher contributors.<sup>69</sup> Of these, stress is one of the most common preceding factors.<sup>70</sup> Based on our evolutionary instincts, stress usually results in a series of short-term hormonal responses within the body.<sup>71</sup> The “fight or flight” reaction causes increased levels of adrenaline and cortisol to be released, informing our body to redistribute energy, producing increased blood pressure and heart rate. Short term,

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<sup>63</sup> “Global Suicide Statistics,” n.d.

<sup>64</sup> “Global Suicide Statistics,” n.d.

<sup>65</sup> Kitanaka 2012

<sup>66</sup> World Population Review 2023

<sup>67</sup> Ibid

<sup>68</sup> Ibid

<sup>69</sup> Ibid

<sup>70</sup> Schneiderman, Ironson, and Siegel 2005

<sup>71</sup> Ibid

this is helpful in heightening concentration, increasing reaction times, and providing a surge of energy.<sup>72</sup> However, long term exposure to the fight or flight response, results in many negative health outcomes.<sup>73</sup>

When exposed to stress, our bodies have two options, utilize coping skills to adapt to the stress, or remain in the fight or flight chemical imbalance.<sup>74</sup> When in this state, not only are certain hormones increased, but prolonged exposure to stress can lower important hormones in our bodies like serotonin.<sup>75</sup> Since Serotonin is the primary hormone responsible with mood regulation, decreased amounts result in a variety of physical and psychological outcomes.<sup>76</sup> Physically, prolonged stress highly lowers immune response, leaving our bodies susceptible to a variety of illnesses.<sup>77</sup> Psychologically, stress is often associated as one of the triggers responsible for the onset of mental illnesses, especially depression and anxiety.<sup>78</sup>

#### Section 4: Demographic Contributions

Because stress is defined as a situation in which the demands outweigh the resources,<sup>79</sup> hopelessness at work is one of the most common stressors reported by surveyed individuals.<sup>80</sup> During a survey of 35 male individuals who attempted suicide, the most common reason stated for their suicidal ideations was stress, and more specifically, work stress.<sup>81</sup> Additionally, feelings of isolation, avoidant coping

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<sup>72</sup> Schneiderman, Ironson, and Siegel 2005

<sup>73</sup> Ibid

<sup>74</sup> Schneiderman, Ironson, and Siegel 2005

<sup>75</sup> Ibid

<sup>76</sup> Ibid

<sup>77</sup> Ibid

<sup>78</sup> Ibid

<sup>79</sup> Ibid

<sup>80</sup> Ibid

<sup>81</sup> Player et al. 2015

strategies, and overly masculine ideals surrounding mental health were also listed.<sup>82</sup> These factors may provide some insight into the reason why more males (18 in 100,000)<sup>83</sup> complete suicides than women (11 in 100,000).<sup>84</sup> While more women attempt,<sup>85</sup> they often utilize less fatal means, and are more likely to seek professional help after their attempt.<sup>86</sup> Contrarily, the taboo nature surrounding mental health in masculine communities, results in men minimizing their symptoms, and not seeking help until after it is too late.<sup>87</sup> While 58% of women seek the help of a doctor or psychologist in the 12 months leading up to their attempt, only 35% of men do the same.<sup>88</sup> While stigma is a significant factor in this difference, lack of education directly oriented towards male emotion regulation is also a contributor.<sup>89</sup>

Often, this path towards suicide follows a similar narrative. Individuals begin to show early signs of disrupted behaviors such as lack of appetite, isolation, trouble sleeping, lack of motivation and feelings of hopelessness.<sup>90</sup> Rather than confront these responses, male individuals tend to avoid them, pushing them deep into their self-consciousness, becoming numb to them.<sup>91</sup> Eventually, a stressor sets off these emotions,<sup>92</sup> and creates a downward spiral, a stage of planning, and eventually, a suicide attempt.<sup>93</sup>

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<sup>82</sup> Player et al. 2015

<sup>83</sup> Schwartz-Lifshitz et al. 2012

<sup>84</sup> Ibid

<sup>85</sup> Ibid

<sup>86</sup> Schwartz-Lifshitz et al. 2012

<sup>87</sup> Player et al. 2015

<sup>88</sup> Ibid

<sup>89</sup> Ibid

<sup>90</sup> Ibid

<sup>91</sup> Ibid

<sup>92</sup> Schneiderman, Ironson, and Siegel 2005

<sup>93</sup> Schwartz-Lifshitz et al. 2012

In many ways, this pattern parallels that of the individuals in Japan seeking the Aokigahara forest. A high stress environment (the dense urban sprawl of Tokyo and the workaholic culture of corporate Japan) leads individuals (disproportionately men) to see no other option but suicide.<sup>94</sup> In both cases, stigma surrounding the subject contributes to feelings of hopelessness and isolation. That, combined with the lack of education provided, and the shortage of alternative options, results in this tragic outcome. So, in the case of such a perpetuating pattern of destruction, what can we do to disrupt this narrative? In what way can the built environment be used to reduce stigma, increase education, and provide individuals with options outside of ending their own lives?

#### Section 5: Aborted, Interrupted, and Completed Suicides

Although the number of suicides completed in Japan annually (30,000)<sup>95</sup> is staggering, even more are attempted but not completed. It is estimated that for everyone completed suicide, there are 50 suicide attempts.<sup>96</sup> Of these, there are three reasons that the attempt was not completed. Firstly, individuals complete their suicide plan, but their means of suicide prove not to be fatal. The second possibility is an aborted suicide attempt, where memories, logic, or second thoughts stops the individual before completing the act.<sup>97</sup> This makes up for 34.6% of cases.<sup>98</sup> Slightly less common, are interrupted suicides, which make up 29.8% of attempts.<sup>99</sup> These

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<sup>94</sup> Lynes, Kelly, and Treadwell 2023

<sup>95</sup> Kitanaka 2012

<sup>96</sup> Schwartz-Lifshitz et al. 2012

<sup>97</sup> Burke 2016

<sup>98</sup> Ibid

<sup>99</sup> Ibid

cases occur, when an individual fully intends on completing suicide, but is interrupted or distracted by some external factor.<sup>100</sup> These cases show that a combination of suicidal desire and physical capability must be present in order for a suicide attempt to be completed.<sup>101</sup> Therefore, the removal of either of these factors, could prove successful in reducing suicide rates in Japan.

#### Section 6: Implications on The Aokigahara Forest

However, this is difficult to execute in the Aokigahara forest. Past attempts to close the forest, and therefore reduce the suicidal capability of individuals to commit suicide, have proven unsuccessful,<sup>102</sup> as the area is too large to regulate. Therefore, other strategies must be explored. In the case of aborted suicides, this mostly has to do with preventative methods. When individuals change their mind about completing suicide, it is either due to other options besides suicide being presented, or individuals recollecting reasons for remaining alive.<sup>103</sup> Therefore, if an environment could be introduced that inspired hope, rest and reflection rather than hopelessness, stress as despair, the

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<sup>100</sup> Burke 2016

<sup>101</sup> Ibid

<sup>102</sup> Lynes, Kelly, and Treadwell 2023

<sup>103</sup> Player et al. 2015

built environment could be utilized as a way of preventing suicides from being attempted in the first place.

On the other hand, interrupted suicides have more to do with immediate distractions,<sup>104</sup> and therefore could be encouraged through the use of small pods placed en-route to the Aokigahara forest, as a means of encouraging individuals to seek alternative methods to suicide. And finally, in both cases, the probability that an individual will once again attempt suicide is extremely high.<sup>105</sup> Individuals who experience an interrupted suicide, are three times more likely to attempt again,<sup>106</sup> than individuals who attempt but are unsuccessful. Therefore, a wellbeing center is necessary in providing individuals with the extra support needed after their experience in the Aokigahara forest, to ensure that they will no longer see Aokigahara as the suicide forest, but instead will perceive it as a place of restoration and healing.

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<sup>104</sup> Burke 2016

<sup>105</sup> Ibid

<sup>106</sup> Ibid

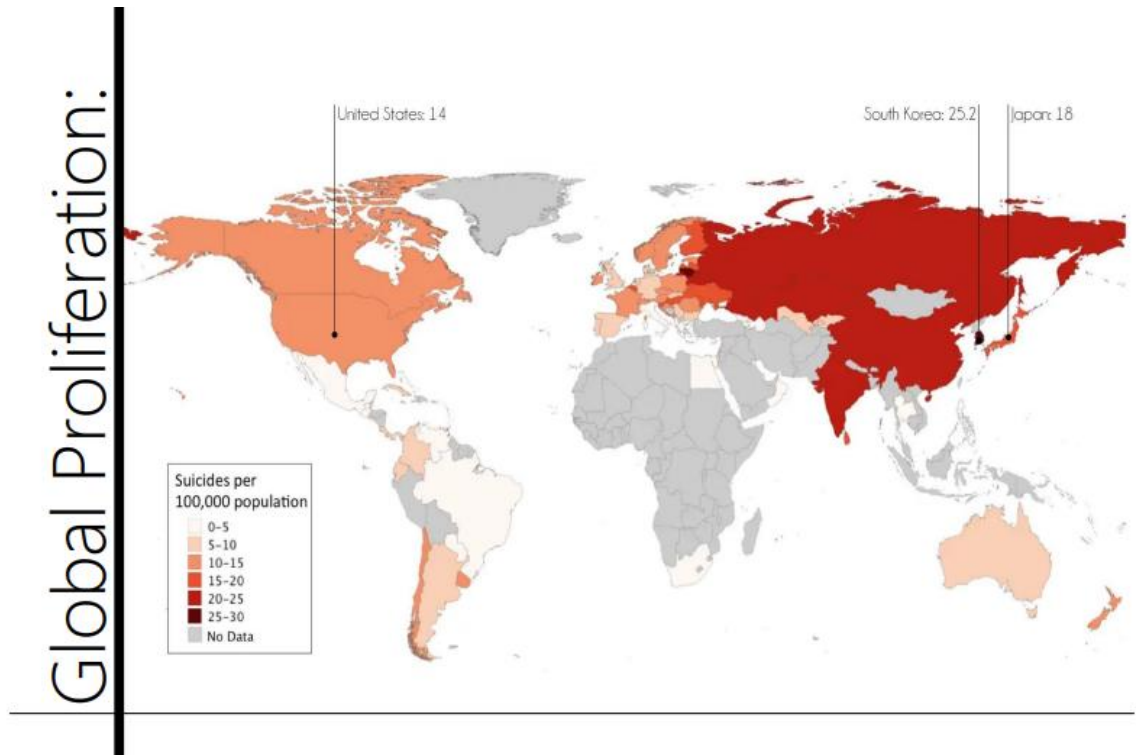


Figure 9: Social Determinants of Health, 2024

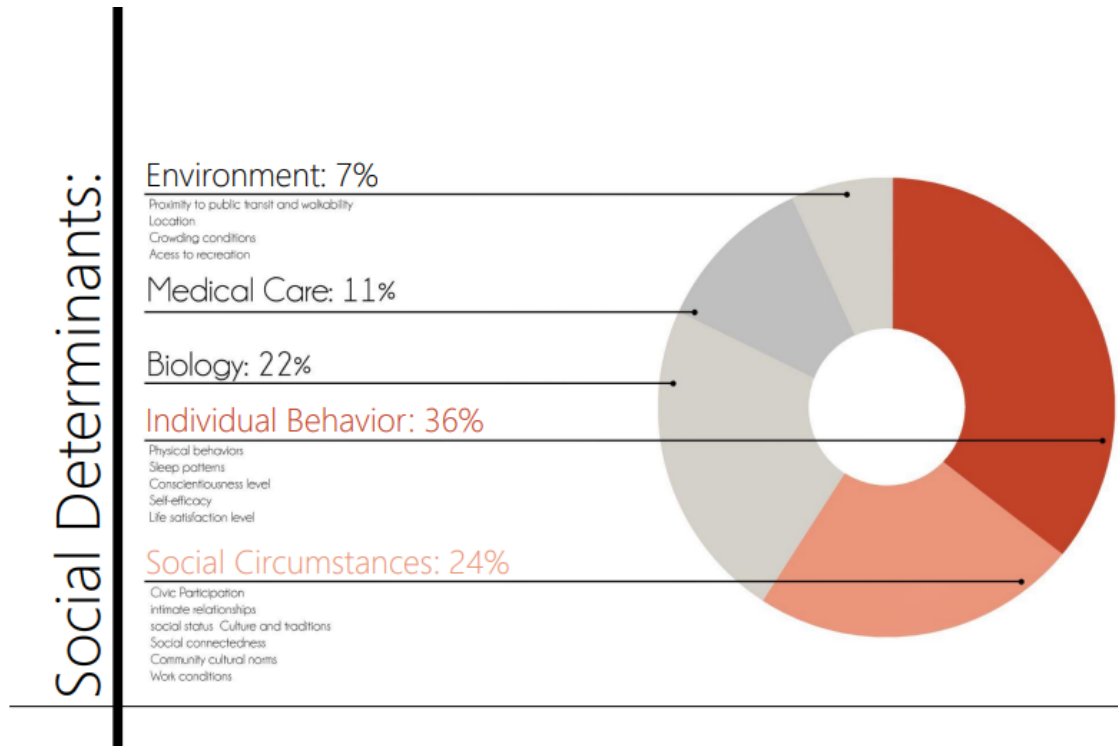


Figure 10: Global Proliferation of Suicide, 2024

## Chapter 3: Kintsugi, Wabi Sabi, and the Perfection Storm

### Section 1: Replacing the Suicidal “Tradition” in Japan

Over the past 100 years, significant efforts to reinterpret and realign understandings of suicide have been made in Japan.<sup>107</sup> Many government policies have been introduced, stricter labor laws have been enforced, and greater education on the subject has been implemented.<sup>108</sup> However, the efforts to disrupt a pattern so ingrained in the tradition-based society of Japan has been difficult. Therefore, this thesis suggests that utilizing the traditions already established within Japanese culture will prove effective in not only meeting the Japanese people from a perspective that they already understand but will also serve as a strategic framework of how these ideas can be organized and structured. In the following three chapters, this thesis will identify three separate Japanese traditions including: wabi-Sabi (the beauty of imperfection), the Japanese tea ceremony (ritual restoration), and forest bathing (nature therapy). Each of these subjects will target a separate issue currently contributing to the high suicide rates in Japan. Additionally, each will be implemented in a different stage of the suicide narrative, hopefully serving as an alternative to the Suicide Forest, as a means of helping individuals untangle the sea of trees.

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<sup>107</sup> Kitanaka 2012b

<sup>108</sup> Ibid

## Section 2: All Work, No Play

As discussed previously, it is impossible to consider the mental health dilemma in Japan without considering the implications of work stress and the highly overworked nature of the Japanese professional environments. On the surface, it could be easy to ignore the underlying mental health issues faced in Japan, as -from a purely economic standpoint, Japan is often seen as a case study for newly developing countries.<sup>109</sup> Hailed as an “economic miracle,” post-World War II Japan experienced one of the fastest growing economies ever in the modern world,<sup>110</sup> and now rank as the fourth highest GDP globally.<sup>111</sup> But although this growth could easily be attributed to the traditional, hardworking, and dedicated nature of the Japanese people, only in recent years has the personal effects of these tendencies been examined.<sup>112</sup> In fact, suicide rates in Japan have now become so prevalent, that they are significantly, negatively impacting the economic landscape of Japan.<sup>113</sup> Professor and leading expert on the subject, Dr. Junko Kitanaka, explains how the significance of this impact has become so intrinsic, that recent years have forced both the Japanese government, and large Japanese companies to take notice.<sup>114</sup> This subject was brought to the forefront in 2000, when Dentsu -the largest marketing firm in Japan, was sued for their hand in one of their employees’ tragic deaths from suicide.<sup>115</sup> The Japanese Supreme Court found that -although Dentsu did not have a

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<sup>109</sup> BBC News 202

<sup>110</sup> Ibid

<sup>111</sup> Ibid

<sup>112</sup> Kitanaka 2012a

<sup>113</sup> Kitanaka 2012b

<sup>114</sup> Ibid

<sup>115</sup> Kitanaka 2012a

direct hand in the employee's decision, they had created a toxic work environment that overworked individuals to the point of depression.<sup>116</sup> This contributed to the government issuing a new definition of suicide, where work suicide was redefined from something completely self-inflicted, to identifying that corporations have a significant role in their workers' mental health and eventual decision to complete suicide.<sup>117</sup> Through this legal policy, corporations in Japan can now be held financially liable, if a worker is diagnosed with a mental health issue related to work stress.<sup>118</sup>

This legislation has also helped to start the transition from the previous understanding of suicide in Japan.<sup>119</sup> Previously, suicide was perceived as biological problem resulting from a "diseased brain".<sup>120</sup> As such, it was almost completely dealt with from a medical standpoint, resulting in treatment being prescribed on an individual level, rather than looking to society as a whole with cultural opportunities for preventative actions.<sup>121</sup> Dr. Junko Kitanaka states that recent statistics pointing to the societal implications of suicide, have helped to change this perspective.<sup>122</sup> She suggests, that "vulnerability is no longer conceptualized as static and frozen in time but rather something that is collective, relational, and even historical."<sup>123</sup> She states that the idea of overworked suicide, is something that has become a better understood

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<sup>116</sup> Kitanaka 2012a

<sup>117</sup> Kitanaka 2012b

<sup>118</sup> Ibid

<sup>119</sup> Ibid

<sup>120</sup> Ibid

<sup>121</sup> Ibid

<sup>122</sup> Ibid

<sup>123</sup> Ibid

subject in Japan, and that individuals are even starting to open up and discuss previously taboo subjects -such as depression, in public.<sup>124</sup>

But while these trends are hopeful, they are difficult to fully implement considering the engrained nature of perfectionism within Japanese working tradition.<sup>125</sup> In fact, Dr. Kitanaka suggests that the very framework of the work environment in Japan, directly creates individuals more prone to depression.<sup>126</sup> She identifies this problem as a spiral of positively reinforced toxic behaviors.<sup>127</sup> In order to achieve perfection, individuals work harder, longer hours resulting in both physical and emotional separation from friends and family.<sup>128</sup> Research has shown that isolation is one of the key symptoms felt by depressed individuals and is a leading contributing factors to suicidal ideations.<sup>129</sup> However, while this feeling negatively impacts individuals' mental health, it is simultaneously being reinforced by verbal and financial reinforcement in the work environment.<sup>130</sup> Individuals who work harder, longer hours, are often placed on a pedestal, given promotions, and used as examples of the "ideal" Japanese worker.<sup>131</sup> This encourages individuals to continue this toxic pattern of prioritizing work adoration at the risk of becoming more isolated.<sup>132</sup>

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<sup>124</sup> Kitanaka 2012b

<sup>125</sup> Kitanaka 2012a

<sup>126</sup> Kitanaka 2012b

<sup>127</sup> Ibid

<sup>128</sup> Ibid

<sup>129</sup> Player et al. 2015

<sup>130</sup> Kitanaka 2012b

<sup>131</sup> Ibid

<sup>132</sup> Ibid

### Section 3: The Perfection Storm

This need for work approval is directly tied to the Japanese tradition of perfectionism,<sup>133</sup> -specifically “socially prescribed” perfectionism.<sup>134</sup> Although suicide is not a direct result of perfectionism (plenty of individuals are perfectionists without ever considering of completing suicide),<sup>135</sup> it does serve as a “trait vulnerability” that contributes to one’s probability of developing suicidal ideations.<sup>136</sup>

Developed by Igor Galynker, the Narrative-Crisis Model, helps to explain how perfectionism features as a vulnerability, rather than a trigger of suicide.<sup>137</sup> Through this model, Galynker, identifies three separate stages in the suicide narrative. Starting with “trait vulnerabilities,” these factors consist of factors that contribute to an individual’s predisposition of committing suicide.<sup>138</sup> Similar to the contributing factors of overall health<sup>139</sup> (discussed in chapter 2) they consist of a variety of biological, societal, and environmental factors.<sup>140</sup> Besides perfectionism, one of the most significant of these factors is cultural acceptability.<sup>141</sup> During previous generations in Japan, suicide was not only accepted,<sup>142</sup> but in the case of kakugo no jisatsu (suicide of resolve),<sup>143</sup> suicide was actually seen as a way of making meaning and impact through one’s death.<sup>144</sup> Other contributing factors to trait vulnerabilities

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<sup>133</sup> Kitanaka 2012b

<sup>134</sup> Ibid

<sup>135</sup> Kitanaka 2012a

<sup>136</sup> Ibid

<sup>137</sup> Ibid

<sup>138</sup> Ibid

<sup>139</sup> Choi, Edwin, and Juhan Sonin 2024

<sup>140</sup> Pia et al. 2020

<sup>141</sup> Ibid

<sup>142</sup> Chen, Choi, and Sawada 2009

<sup>143</sup> Kitanaka 2012b

<sup>144</sup> Ibid

include, one's past, tendency for impulsivity, feelings of hopelessness, and of course, perfectionism.<sup>145</sup>

Although these factors do not predict suicide, they serve as framework for the next stage in Galynker's Narrative-Crisis Model -the suicide narrative stage.<sup>146</sup> During this stage, the foundations previously set, combine with negative thought patterns to push individuals closer to suicidal tendencies.<sup>147</sup> Perceptions of being a burden, being entitled to happiness, being isolated from others, and seeing no hope for the future, all push individuals closer to the "Suicidal Crisis" phase.<sup>148</sup> During this final stage of Galynker's module, individuals become stuck in an "acute, negative cognitive and emotional state."<sup>149</sup> During this time, individuals are so lost within their feelings of hopelessness that their cognitive and logical faculties are almost completely impaired, making prevention at this stage almost impossible.<sup>150</sup> Therefore, intervention during one of the earlier stages is imperative in disrupting this narrative.

Understanding the specific type of perfectionism experienced within Japanese work environments, is important in determining the most effective way of contradicting these issues. Within perfectionism, there are three separate types identified.<sup>151</sup> Firstly, "self-oriented perfectionism" occurs when an individual has an unreasonable or unobtainable expectation for oneself -outside of what others' expectations may be.<sup>152</sup> This often leads to feelings of guilt, which can have some

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<sup>145</sup> Pia et al. 2020

<sup>146</sup> Ibid

<sup>147</sup> Ibid

<sup>148</sup> Ibid

<sup>149</sup> Ibid

<sup>150</sup> Ibid

<sup>151</sup> Ibid

<sup>152</sup> Pia et al. 2020

minor, but important impact on one's suicidal ideations.<sup>153</sup> On the other hand, "other oriented perfectionism" is when an individual has an unreasonable or unobtainable expectation for others.<sup>154</sup> While this type of perfectionism can result in feelings of disappointment, it does not significantly contribute to one's suicidal ideation.<sup>155</sup> By far the most significant, is "socially prescribed perfectionism," where an individual experiences unreasonable or unobtainable expectation from an outside force.<sup>156</sup> This often results in feelings of obligation, failure, and humiliation, and significantly effects one's suicidal ideations.

In Japan where societal expectations are integrally linked to the work culture, societally prescribed perfectionism has become part of the traditional heritage of Japan. However, there is a contradicting tradition in Japan, that emphasizes the beauty of imperfection, and the positives that can be found in the broken. This tradition - wabi-sabi, may play an important role in contradicting the perfectionist ideations in Japan, and serve as a cultural reference point for Japanese individuals.<sup>157</sup>

#### Section 4: Wabi-Sabi

Originally created in 14th century Japan,<sup>158</sup> wabi-sabi is a Zen Buddhist philosophy based on three tenets revolving around the core idea that nothing in the world is perfect and that beauty can be found in imperfection.<sup>159</sup> Based on this, wabi sabi features as a complete contrast to ideas and ideals of the workaholic nature and

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<sup>153</sup> Pia et al. 2020

<sup>154</sup> Ibid

<sup>155</sup> Ibid

<sup>156</sup> Ibid

<sup>157</sup> Ibid

<sup>158</sup> Bergefurt et al. 2022

<sup>159</sup> Ibid

perfectionism of the working culture in Japan. With roots even deeper in Japanese tradition than perfectionism, it is important for us to consider the origins of these traditions to better understand how they could be utilized as an alternative perspective for Japanese individuals.

Wabi-sabi consists of two separate words that developed independently over the years.<sup>160</sup> Firstly, “wabi” originated as a term used by Buddhist monks to describe the solidarity, tranquility, and simplicity found in nature.<sup>161</sup> Similar to the modern ideals of forest bathing (see chapter 5),<sup>162</sup> expeditions into the forest were seen as opportunities for grounding and centering oneself into the current moment.<sup>163</sup> Individuals were encouraged to reflect on the feelings of loneliness and find comfort in nature rather than human company.<sup>164</sup> Although loneliness in itself is not a positive feeling, the philosophy behind this perspective emphasizes the Buddhist ideals of finding fulfillment in oneself, outside of negative surrounding factors.<sup>165</sup> Emphasizing this idea further, “sabi” translates literally as a word for rotten, old, wilted, or damaged.<sup>166</sup> It was a phrase commonly used to describe older and more experienced monks that eventually evolved into a term of endearment.<sup>167</sup> It emphasized the importance of age, and the wisdom that comes with it. Reflecting on the idea that

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<sup>160</sup> Bergefurt et al. 2022

<sup>161</sup> Ibid

<sup>162</sup> Clare Cooper Marcus and Sachs 2014

<sup>163</sup> Bergefurt et al. 2022

<sup>164</sup> Ibid

<sup>165</sup> Ibid

<sup>166</sup> Ibid

<sup>167</sup> Ibid

nothing of this earth is permanent, decay, brokenness, and eventual death are just seen as another stage of the cycle of life.<sup>168</sup>

Combined, these ideas form the three key tenets of wabi-sabi. Firstly, that “nothing is perfect”. Just as nature is imperfect, so is each individual.<sup>169</sup> And since “perfection doesn’t exist,” humility is emphasized as a form of being content with one’s personal imperfections.<sup>170</sup> Secondly, that “nothing is finished”.<sup>171</sup> Instead, life is seen as a series of stages, where one stage ends, another begins.<sup>172</sup> Buddha is credited in saying that “I am always beginning” emphasizing this idea of impermanence, and the contentedness one must find in the impermanence of the world surrounding us.<sup>173</sup> And finally, that nothing lasts forever.<sup>174</sup> This directly ties to the definition of “sabi”, and reverence held for old and decaying people, objects, and experiences. With this ideal, beauty is able to be found within the imperfections and broken nature of our surrounding world.<sup>175</sup> The traditional story used to emphasize these ideas, is that of a monk sweeping up leaves within a Zen Garden. He is meticulous in his work -valuing the solidarity of nature, and appreciating the physical, repetitive act tying him to the moment.<sup>176</sup> But although he completes his task perfectly, before returning indoors, he allows one singular leaf to fall on the ground, physically illustrating the ideals of the impermanence, imperfection, and mailability of the world.<sup>177</sup>

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<sup>168</sup> Bergefurt et al. 2022

<sup>169</sup> Ibid

<sup>170</sup> Ibid

<sup>171</sup> Ibid

<sup>172</sup> Ibid

<sup>173</sup> Ibid

<sup>174</sup> Ibid

<sup>175</sup> Ibid

<sup>176</sup> Ibid

<sup>177</sup> Ibid

### Section 5: Kintsugi, the Golden Joint

Wabi-sabi, is a multifaceted lifestyle that is understood to not only affect philosophy, history, and ethics, but also art, landscape, and architecture.<sup>178</sup> This idea can perhaps be seen clearest in the idea of Kintsugi (the golden joint).<sup>179</sup> In this classic Japanese tradition, broken pottery is mended together using either pure gold or silver.<sup>180</sup> In this way, the imperfection and broken nature of the pottery is emphasized, revered, and made even more valuable through the process. The beauty is not found in the object itself, but instead is found in the journey that the object has taken. In a very physical way, it emphasizes the three ideals of wabi-sabi. Through the broken pieces of the pottery, nothing is perfect but rather potential is seen despite the imperfections, through the act of mending the pieces together, nothing is finished, as the potential is seen in its use after its initial life, and through the emphasis of the brokenness, impermanence is exhibited as a positive reminder of the temporariness and imperfection of life.

These ideas, and the importance of them in Japanese tradition, is clearly seen through the book in praise of Shadows.<sup>181</sup> Written by Japanese philosopher, poet, and author, Jun'ichirō Tanizaki, it emphasizes the Japanese ideals of finding beauty in the mundane, the undesirable, and the usual.<sup>182</sup> It emphasizes the idea that value is not found in the condition of an object but is instead found in the journey. “While we do indeed sometimes use silver for tea kettles, decanters, or sake cups, we prefer not to

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<sup>178</sup> Bergefurt et al. 2022

<sup>179</sup> Santini 2019

<sup>180</sup> Ibid

<sup>181</sup> Jun'ichiro Tanizaki 2019

<sup>182</sup> Ibid

polish it. On contrary, we begin to enjoy it only when the luster has worn off, when it has begun to take on a dark, smokey patina.”<sup>183</sup>

#### Section 6: The Golden Joint in Architecture:

Beyond the very practical ways this could be used in architecture, through the use of similar materials, the implementation of shattered pieces, or the emphasis of raw construction methods, there is also an organizational and philosophical aspect of the wabi-sabi that could be implemented within this thesis design. The importance of perfectionism lies as both the key tenant of wabi-sabi and the aggressive suicide rates in Japan, and therefore the key tenants of wabi-sabi could be implemented within architecture. Perfectionism should be applied as the key aspect of the architectural design. Additionally, the implications of impermanent architecture, kinesthetic design, and transformative places are all ideals that can also be utilized. As described by Jun'ichirō Tanizaki, the architecture should not be just a “silver teakettle”,<sup>184</sup> but it should be allowed to be affected by the use, user, and surroundings, to develop a patina. When architecture is allowed to be influenced by the user, the opportunity for the user to be impacted by the architecture is also made possible. At that point of interaction, architecture is used as the golden joint.

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<sup>183</sup> Jun'ichiro Tanizaki 2019

<sup>184</sup> Ibid

## Chapter 4: Chanoyu and the Necessity for Ritual Restoration

### Section 1: Cognitive Behavioral Theory

While Kintsugi is based exclusively on Japanese tradition and its connection to Zen Buddhist practice, western forms of therapy also have their merits, and should be explored within the context of Japan, and how they can be implemented within the realm of Japanese tradition.

Cognitive Behavioral Theory (CBT) -one of the most common forms of therapy in the western world, stands out among other forms of psychotherapy because of its connections to behavior and environment over purely psychological analysis.<sup>185</sup> Popularized in the 1960's by psychiatrist Aaron Beck,<sup>186</sup> CBT argues that mental issues (such as depression and anxiety) are not purely due to one's moods and emotions, but instead are highly influenced by one's thinking and behavior.<sup>187</sup> In his book *Cognitive Therapy for Depression*, Beck argues that most mental illnesses spur from a line of irrational, exaggerated, or misinterpreted thoughts.<sup>188</sup> These thoughts are usually immediate responses formed from our perception of the world around us (based on past experiences and traumas), and our core beliefs about ourselves.<sup>189</sup> Therefore, a routine occurrence -such as a friend not responding to a text message, or walking past without saying hello, can be exaggerated into irrational proportions.<sup>190</sup> If one has experienced abandonment in their past (thus forming one's perception of the

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<sup>185</sup> American Psychological Association 2017

<sup>186</sup> Chand, Kuckel, and Huecker 2023

<sup>187</sup> Ibid

<sup>188</sup> Ibid

<sup>189</sup> Ibid

<sup>190</sup> Chand, Kuckel, and Huecker 2023

world) and believes that they are unlovable (based on one's core beliefs) this routine occurrence becomes a source of mental distress.<sup>191</sup> Instead of considering very logical reasons for the friend's lack of response (such as the friend was busy or distracted), the irrational thoughts automatically jump to irrational extremes assuming that the friend is intentionally ignoring them, hates them, or never wants to speak to them again.<sup>192</sup> Because these thoughts are based on immediate instinct, Beck suggests that the most effective way in contradicting them, is by utilizing mindfulness as a form of checking and reframing the circumstances.<sup>193</sup> Rather than twisting into a spiral of irrational thinking, Cognitive Behavioral Therapy encourages users to pause, observe the facts of the situation, and question initial thoughts through the lens of logic.<sup>194</sup>

There are many benefits to this form of therapy, mostly due to the active part patients play in their own treatment.<sup>195</sup> Rather than passive discussion of emotions and feelings (like that seen in traditional talk therapy), the cognitive function of the individual is challenged and realigned.<sup>196</sup> In doing so, behaviors are also challenged. Take for example again the situation of a friend not responding to a text message. Without CBT, a highly anxious individual may assume that the friend is no longer interested in a relationship, that they have done something to upset them, and that the friend never wants to hear from them again. As a result, the individual may retreat, causing them to act cold and distant towards the friend. This serves only to increase the miscommunication, perpetuating the issue, and causing a spiral of relationship

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<sup>191</sup> Ibid

<sup>192</sup> Ibid

<sup>193</sup> Ibid

<sup>194</sup> American Psychological Association 2017

<sup>195</sup> Ibid

<sup>196</sup> Ibid

issues.<sup>197</sup> On the other hand, CBT would challenge the individual to consider alternative reasons for the friend's lack of response.<sup>198</sup> Based on this new line of thinking, the patient is more likely to participate in a form of positive behavior. Instead of withdrawing, they might reach out again, thus reopening the channel of communication and preventing the possibility of a continual downward psychological spiral.

This connection between thoughts and actions is the intrinsic philosophy of Cognitive Behavioral Theory.<sup>199</sup> It suggests a cyclical connection where thoughts inspire behavior, and behavior affects thoughts.<sup>200</sup> However, due to its cyclical nature, it is often difficult to break this pattern after it has been established and functions as a habit. Things like mindfulness, logical thinking, and intention are effective once implemented,<sup>201</sup> but are practically difficult to inspire in a patient when they are within the thick of a downward spiral.

Instead, coping mechanisms are utilized as a form of preventative therapy.<sup>202</sup> Patients are taught a specific set of thoughts or actions in preparation for stressful situations. Therefore, when the spiral of stress is present, patients can utilize the "tools" that they have already learned, curated, and practiced. These mechanisms can take a variety of forms and are usually tailored specifically to the user or situation. Some are more passive and flexible (such as breathing with intention) while others are more active and structured (such a breathing in sync with a specific count and

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<sup>197</sup> Chand, Kuckel, and Huecker 2023

<sup>198</sup> Ibid

<sup>199</sup> American Psychological Association 2017

<sup>200</sup> Vassli 2023

<sup>201</sup> Ibid

<sup>202</sup> American Psychological Association 2017

hand motion). But in any case, the key factor is that patients must be an active member in their treatment and must choose to participate in the designated behavior.<sup>203</sup>

### Section 2: Ritual as a Form of Cognitive Behavioral Theory

In many ways, this form of therapy reflects the type of actions and ideals one would expect in religious ritual. As such, religion has been shown to positively affect mental health and reduce levels of both anxiety and depression.<sup>204</sup> One of the multiple reasons for this correlation is partially due to the feelings of comradery associated with a community being united under one ideology, and partially due to the positive benefits of ritual itself.<sup>205</sup>

### Section 3: Sociological Benefits of Ritual

From a sociological perspective, the benefits of ritual is to create an environment for individuals to come together and unite under similar thoughts with the intention of experiencing and expressing similar emotions.<sup>206</sup> This allows for a form of group catharsis where emotions usually perceived as negative (such as anger, sadness, pain, etc.) are not only allowed, but are encouraged.<sup>207</sup> Because contextual boundaries are carefully established and emotional responses are mutual, individuals are allowed space to express emotions in a safe and supportive environment. In many ways, this is the exact opposite of the “familiar stranger” conundrum (see chapter

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<sup>203</sup> American Psychological Association 2017

<sup>204</sup> Wood 2016

<sup>205</sup> Schumaker 1992

<sup>206</sup> Ibid

<sup>207</sup> Ibid

5).<sup>208</sup> While “familiar strangers” are individuals that one recognizes but never interacts or connects with,<sup>209</sup> ritual allows people that may have never met, to connect through their mutual understanding of the world and the traditions that they both practice.<sup>210</sup>

A key example of this type of social ritual connection can be seen in the tradition of hot springs (onsens) in Japan. While the physical benefits of hot springs have been proven to assist with muscle, joint, and topical related ailments, beyond the individual, hot springs provide the context for group healing and socialization.<sup>211</sup> Utilized for over 2000 years, hot springs were traditionally the location where warriors would go to relax, recharge, and socialize with their fellow men in arms after battle.<sup>212</sup> This tradition creates connections not only to those also utilizing the amenity, but also provides a feeling of connection towards past history. This is the reason that many hot springs still utilize traditional vernacular architecture.<sup>213</sup> It promotes the connection of individuals to the past, grounded in a natural element that connects them to nature, while they engage in tradition that connects them to others.

Because loneliness is a key contributor to depression (and therefore suicide),<sup>214</sup> it is clear to see why this type of connection through ritual helps to positively affect individuals’ mental health. And based on the huge amounts of

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<sup>208</sup> Devlin 2018

<sup>209</sup> Ibid

<sup>210</sup> Schumaker 1992

<sup>211</sup> Serbulea and Payyappallimana 2012

<sup>212</sup> Ibid

<sup>213</sup> Ibid

<sup>214</sup> Devlin 2018

loneliness seen in young (especially male) professionals (as discussed in chapter 2),<sup>215</sup> this benefit of ritual is enough to establish its importance.

#### Section 4: Cognitive Behavioral Benefits of Ritual

But beyond the group benefits of ritual, the action of ritual itself is also beneficial. These benefits have to do with the similarities between ritual and coping mechanisms. Although usually associated with religion, ritual is defined as the “established form of ceremony: an act or series of acts regularly repeated in a set precise manner”<sup>216</sup> and therefore has more to do with the actions completed than the reasoning behind said actions. In the case of Cognitive Behavioral Theory, any of the actions utilized for coping (such as breathing exercises, grounding techniques, or reframing strategies) could be categorized as rituals, as they consist of established actions that are practiced and repeated regularly.<sup>217</sup> Therefore, much like CBT, rituals have been proven to improve mental health due to the mindfulness and cognitive reflection associated with these actions.<sup>218</sup> By participating in a rehearsed action, individuals are grounded within the moment while freeing up cognitive space for mindfulness.<sup>219</sup> It allows individuals to pause, reflect, and observe the external world around them, and the internal world within.<sup>220</sup>

Mindfulness has been shown to have many positive mental health benefits.<sup>221</sup> Not only does it promote wellbeing, increase self-awareness, and encourage empathy,

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<sup>215</sup> Ibid

<sup>216</sup> Merriam-Webster 2014

<sup>217</sup> Clare 2014

<sup>218</sup> Schumaker 1992

<sup>219</sup> Vassli 2023

<sup>220</sup> Ibid

<sup>221</sup> Ibid

but it has even been shown to rewire the brain through the formation of new habits.<sup>222</sup>

While stress and trauma can create distorted perspectives of oneself thus leading to illogical thinking, destructive actions, and negative mental health,<sup>223</sup> mindfulness promotes healthy self-reflection, logical clarity and therefore the opportunity for health habits to form.<sup>224</sup> In contrast to the development of mental illness as explained by Aaron Beck,<sup>225</sup> Andres Vassil suggests that healthy habits are formed through a “mindfulness cycle.”<sup>226</sup> He proposes that -since mindfulness promotes wellbeing (as proven through a magnitude of studies), individuals are no longer concerned with self-preservation, and therefore have more time to consider the needs of others and observe the state of the world around them.<sup>227</sup> This clarity mixed with awareness, creates empathy, which then encourages positive behaviors and actions that benefit society as a whole.<sup>228</sup>

The focus on societal benefits beyond personal gain has many similarities to the Japanese ideal of the prioritization of the greater good. But while traditional prioritization of the collective often comes at the expense of the individual, the mindfulness cycle flips this idea on its head, and instead suggests that prioritization of the individual first,<sup>229</sup> creates the space and desire necessary for actions that benefit the whole.

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<sup>222</sup> Ibid

<sup>223</sup> Schumaker 1992

<sup>224</sup> Vassli 2023

<sup>225</sup> Schumaker 1992

<sup>226</sup> Vassli 2023

<sup>227</sup> Ibid

<sup>228</sup> Ibid

<sup>229</sup> Vassli 2023

This connection between mindfulness and Japanese tradition is further seen in Vassil's work through his discussion of the Japanese tea ceremony. Vassil suggests that tea ceremonies are a transformative experience that connects individuals to nature, encourages mindfulness, and promotes positive habits.<sup>230</sup> He outlines several separate benefits of participating in a Japanese tea ceremony. Firstly, the repetitive ritualistic nature of a tea ceremony increases awareness, thus leading to the second advantage of improving personal health and subjective well-being.<sup>231</sup> Additionally, it promotes strong social tendencies by connecting individuals through shared traditional experiences.<sup>232</sup> And finally, the physical location of most tea ceremonies promotes connectedness with nature.<sup>233</sup> Most tea ceremonies are held in traditional tea huts -a beautifully simplistic structure of multiple rooms specifically designed around the individual steps utilized during the ceremony.<sup>234</sup> The architecture directly reflects the function of the space, creating an environment specifically tailored to the ritual and surrounded by nature. Because tea was originally introduced to Japan by Buddhist monks, the religious connotation of a tea ceremony is fully ingrained within its origins.<sup>235</sup> And the inclusion of these tea huts within Zen gardens is extremely common.<sup>236</sup> But even if not held within a traditional hut, ceremonial tea spaces always include views into a garden space providing opportunities for connection to nature, and the grounding benefits that provides.<sup>237</sup>

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<sup>230</sup> Ibid

<sup>231</sup> Ibid

<sup>232</sup> Ibid

<sup>233</sup> Clare 2014

<sup>234</sup> Vassli 2023

<sup>235</sup> Vassli 2023

<sup>236</sup> Ibid

<sup>237</sup> Clare 2014

### Section 5: Behavioral Connection to Architecture

Because of the many benefits of ritual and the utilization of ritual in both hot spring and tea house design, these two building technologies will prove useful as precedents for the design of all aspects of this thesis. While the inclusion of ritual will feature as a key aspect of the thesis strategy, more subtle references to hot spring bathing and tea ceremonies will assist in connecting users to the historic significance and benefits of these traditions.

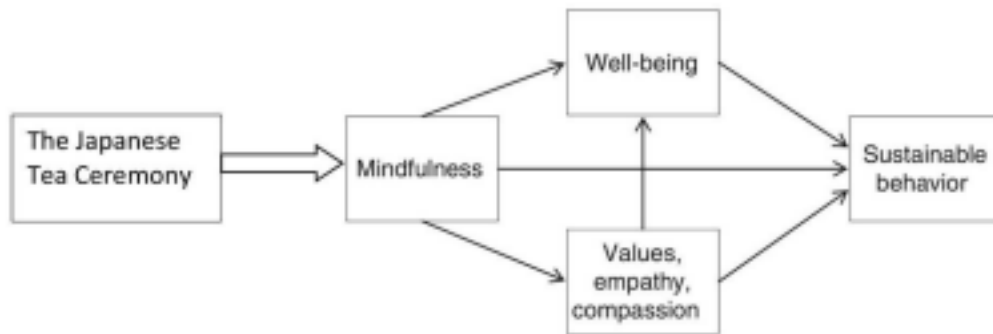


Figure 11: *The Mindfulness Cycle*, Vassli, 2023



Figure 12: *Nature from a Tea Ceremony* 2024



*Figure 13: Private Hot Spring 2024*

## Chapter 5: Forest Bathing and Urban Stress

### Section 1: Urban Stress

Although the act of completing suicide is closely associated with the Aokigahara forest, the causes of the excessively high suicide rates in Japan begins long before an individual even steps within the Sea of trees. Due to its close proximity to Tokyo (about 2.5-hour train ride), most individuals begin this journey towards suicide in the densely populated urban landscape. Because of Japan's workaholic culture, the majority of workers in Japan report feelings of stress, with over 60% of individuals reporting work-related anxiety.<sup>238</sup> However, this issue does not seem to be a top priority for Japanese companies, as over 23% of corporations report that their employees work over 80 hours of overtime every month.<sup>239</sup> As

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<sup>238</sup> Li 2022

<sup>239</sup> Ibid

stressful as these types of working conditions can be on their own, this problem is even further enhanced when considering the overall stressful environment of the city itself.<sup>240</sup> With a density of over 15,000 individuals per square mile,<sup>241</sup> Tokyo is an extremely dense city. Based on the evidence that urban environments can contribute to an individual's stress level, it is important to consider how this urban fabric can contribute to individuals' wellbeing within the context.

Stress related to urban settings is primarily created through the intensity of crowding. Although often used synonymously, crowding and density have two distinct definitions,<sup>242</sup> with density referring to the physical, statistical number of individuals within a set unit measurement<sup>243</sup> (15,949 individuals per square mile in Japan),<sup>244</sup> and crowding referring to user's perception of the environments around them.<sup>245</sup> Therefore, crowding has much more to do with the experience in a space regardless of how many people may actually be within that area.<sup>246</sup> This idea is directly connected to perceptions of privacy and control.<sup>247</sup>

As defined by renowned environmental psychologist Irwin Altman, privacy (commonly referred to as our space bubble) is "an area with an invisible boundary surrounding the person's body into which intruders may not come."<sup>248</sup> It directly has to do with our sense of control, as -once someone penetrates that privacy boundary, one no longer feels like they have the ability to maintain the distance needed for

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<sup>240</sup> Clare Cooper Marcus and Sachs 2014

<sup>241</sup> World Population Review 2023

<sup>242</sup> Devlin 2018

<sup>243</sup> Ibid

<sup>244</sup> World Population Review 202

<sup>245</sup> Devlin 2018

<sup>246</sup> Ibid

<sup>247</sup> Ibid

<sup>248</sup> Ibid

safety and nervous system regulation.<sup>249</sup> This feeling of a lack of control, will eventually lead to stress if the individual is either: unable to adapt to the stressor, or unable to remove themselves from the stressful environment.<sup>250</sup> Prolonged exposure to stressors can result in the phenomenon of “learned helplessness,” where individuals are conditioned to believe that they will never be able to change their circumstances and therefore, completely give up ever trying to positively affect their environments.<sup>251</sup> Learned helplessness can eventually lead to many mental health issues, such as depression or anxiety.<sup>252</sup> However, even if not experienced to their extreme, the inappropriate amount of privacy provided by a space can have extremely negative impacts on individuals.<sup>253</sup> Too much privacy results in feelings of isolation and loneliness, whereas not enough leads to feelings of crowding.<sup>254</sup> Even more frustrating, these effects can be experienced in tandem, when individuals are surrounded by a high density environment, thus increasing stress levels, but are not personally engaging with any of said individuals, thus contributing to feelings of isolation. This phenomenon of the “familiar stranger” is unfortunately very common in urban environments.<sup>255</sup>

## Section 2: Natural Relief

In contrast to the many negative effects of the urban environment on stress levels and mental health, the natural environment has been shown to greatly decrease

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<sup>249</sup> Ibid

<sup>250</sup> Clare Cooper Marcus and Sachs 2014

<sup>251</sup> Łabuz-Roszak, Bil, and Gorczyca 2018

<sup>252</sup> Schneiderman, Ironson, and Siegel 2005

<sup>253</sup> Devlin 2018

<sup>254</sup> Ibid

<sup>255</sup> Devlin 2018

stress, and positively increase user wellbeing.<sup>256</sup> By simply introducing a view of nature through a window, environmental psychologist Roger Ulrich discovered that viewing nature was enough to decrease required healing times and pain medication needed by hospital patients.<sup>257</sup> Research has shown that engaging multiple senses in nature has even more health benefits to both our mental and physical health.<sup>258</sup>

In Japan, this practice of engaging with nature is known as “forest bathing”<sup>259</sup> and involves fully immersing oneself into nature, with the hopes of engaging every sense (beyond just sites like views out of a window can provide).<sup>260</sup> Because of its effectiveness, the practice of tree bathing was introduced by the Japanese National Health Program through their establishment of the Japanese Society of Forest Therapy in 2004.<sup>261</sup> Although the positive effects of forest bathing had been anecdotally understood for years,<sup>262</sup> this organization was tasked in researching and finding measurable statistics about the effects of forest bathing on stress and mental health. This research found significant impacts of forest bathing on regulating individuals’ nervous systems.<sup>263</sup> Forest bathing was shown to positively impact the parasympathetic nervous system, encouraging relaxation, restoration, and rejuvenation,<sup>264</sup> while simultaneously decreasing the activity of the sympathetic nervous system.<sup>265</sup> The Sympathetic nervous system controls our fight or flight

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<sup>256</sup>Clare Cooper Marcus and Sachs 2014

<sup>257</sup> Ibid

<sup>258</sup> Li 2022

<sup>259</sup> Clare Cooper Marcus and Sachs 2014

<sup>260</sup> Ibid

<sup>261</sup> Li 2022

<sup>262</sup> Ibid

<sup>263</sup> Clare Cooper Marcus and Sachs 2014

<sup>264</sup> Li 2022

<sup>265</sup> Ibid

response and is responsible for our three stress hormones: adrenaline which controls our mental stress, noradrenaline which controls our physical stress, and cortisol which affects both mental and physical health.<sup>266</sup> Meanwhile, it also positively contributes to our production of cortisol, thus improving moods.<sup>267</sup> In fact, in a UK study, 92% of individuals reported decreased stress levels after participating in a forest bathing program.<sup>268</sup> This is stark contrast to individuals who participated in similar activities, but in an urban setting, which actually increased stress levels by up to 22%<sup>269</sup>

This research suggests that it is not just the behaviors themselves, but the environment in which these behaviors happen, that affects stress levels. This is largely due to the immersive aspect of forest bathing.<sup>270</sup> While views out of a window (like the experiment done by Ulrich) are beneficial, they only engage one of our senses.<sup>271</sup> In contrast, forest bathing is interested in engaging every sense.<sup>272</sup> The sight of dancing leaves provides a pleasant distraction, the sound of distant birds provides the correct amount of stimulation, the feeling of earth beneath one's feet provides a grounding element. Even the smell and taste of pine needles has been shown to decrease anxiety levels.<sup>273</sup>

While the research done by the Japanese Society of Forest Therapy undeniably proved the effectiveness of forest bathing, it still leaves the question of why it works. There are many theories that attempt to answer the question of why

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<sup>266</sup> Ibid

<sup>267</sup> Ibid

<sup>268</sup> Clare Cooper Marcus and Sachs 2014

<sup>269</sup> Ibid

<sup>270</sup> Li 2022

<sup>271</sup> Clare Cooper Marcus and Sachs 2014

<sup>272</sup> Li 2022

<sup>273</sup> Clare Cooper Marcus and Sachs 2014

forest bathing is effective, including the Prospect Refuge theory by Jay Appleton.<sup>274</sup> Appleton suggests that we are naturally drawn to environments that provide us the resources we see as necessary to our survival.<sup>275</sup> He proposes that -to prevent the feeling of stress in an environment, we need to feel that we are able to gather the things necessary to our survival with prospect (a clear view) and refuge (without the fear of danger).<sup>276</sup> Psychologists Heerwagen and Orians expanded on this idea, by introducing four elements that contribute to our feelings of safety.<sup>277</sup> Firstly, resource availability and the comfort provided in knowing that there are adequate supplies for an individual to complete their goals without the fear of resource competition.<sup>278</sup> Secondly, shelter, as individuals require areas of refuge to escape to when feeling over stimulated and in need of privacy.<sup>279</sup> Thirdly, Hazard cues allow an individual to perceive a threat before it becomes an actual danger.<sup>280</sup> And finally, wayfinding as it allows users to circulate through a space without danger, complication, and increased feelings of stress.<sup>281</sup> All these factors can help to prevent stress and can be easily implemented within the built environment.

Another theory to explain the effectiveness of forest bathing, is the stress reduction theory. It proposes that stress is reduced, when individuals are able to escape the environment of stress, and instead seek an environment of refuge.<sup>282</sup> Long exposure to stress, like monotonous tasks (often assigned in high stress work

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<sup>274</sup> Ibid

<sup>275</sup> Ibid

<sup>276</sup> Clare Cooper Marcus and Sachs 2014

<sup>277</sup> Ibid

<sup>278</sup> Ibid

<sup>279</sup> Ibid

<sup>280</sup> Ibid

<sup>281</sup> Ibid

<sup>282</sup> Ibid

environments), requires the use of directed attention, where an individual must intentionally choose to place their concentration on said specific task.<sup>283</sup> Eventually, this leads to fatigue and becomes extremely stressful. However, this stress can be reversed through action of indirect attention. Indirect attention is when one is naturally distracted by something, without requiring intentional effort from the individual to concentrate.<sup>284</sup> These types of distractions are often seen in nature such as the sight of rustling trees, the sound of bubbling water, or the feeling of crashing waves. In fact, the image of trees, the moving shadows cast by them, the green filtered light beneath them, and the soothing sounds of their rustling branches have in themselves proven to be stress relief factors,<sup>285</sup> where the increased number of trees was shown to directly decrease stress.<sup>286</sup>

### Section 3: Applications to Aokigahara Forest

With the many benefits of forest environments on user wellbeing in decreasing stress levels, this information begs the question of why the Aokigahara forest has the notoriety of being the exact opposite. While forests and the idea of forest healing has been around for millennia,<sup>287</sup> Aokigarah has been associated with suicide and death. Since the Suicide Forest has the elements necessary to becoming a healing environment, how can we as architects, utilize its many positive aspects, and turn the narrative of the suicide forest from a location of pain to that of healing?

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<sup>283</sup> Clare Cooper Marcus and Sachs 2014

<sup>284</sup> Li 2022

<sup>285</sup> Ibid

<sup>286</sup> Clare Cooper Marcus and Sachs 2014

<sup>287</sup> Li 2022

## Chapter 6: Site Selection

### Section 1: Location, Location, Location

As a multifaceted issue, the strategies to reduce work stress and therefore the high suicide rates in Japan must also be multilayered. Of the three issues and strategies explored in this thesis, each can be implemented in two separate locations intrinsic to the narrative of suicide in Japan. Firstly, the issues of work stress should be addressed in the primary location of the issue, the business district of Tokyo. On the other hand, the issues of stigma and the suicide cycle should be handled in the Aokigahara forest as the site of the negative place making.

### Section 2: The Imperfect Office

Stress is one of the most significant determining factors of the high suicide rates in Japan<sup>288</sup>. Since the physical environment has a significant impact on our overall stress levels, it is important to determine through this analysis, high stress locations with the most opportunity for restorative intervention.

Because of the typological nature of this design, each of the three site options were located within a business district of Tokyo. The first was located just one block away from the Dentsu International Headquarters. As the company was implicated in the original stress related death lawsuit, Dentsu's history is directly linked to this conversation<sup>289</sup>. The second site was located in the Marunouchi district, one of the most dense business areas within Tokyo. The third site was located in Shinjuku, a neighborhood especially popular with young adults (the target audience of this

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<sup>288</sup> Kitanaka 2012b

<sup>289</sup> Ibid

thesis). And finally, the fourth was located in Shibuya. One of the most notorious business districts in Tokyo known for its high density and busy streets.

Demographic factors considered -such as average age, median household income, and gender percentage, were important in identifying the locations of the targeted population and how impactful the site will be on their day-to-day lives.

Physical factors such as access to green space, density, and access to air and light, all contribute to stress intensity possibly created by the site itself. The following information was procured through initial research, combined with on-site observations and conversations with Tokyo locals.

#### Determining Factors:

The following ten factors were considered and given numerical weight based on the following ranking systems:

- Age Demographic
  - With suicide as the highest cause of death in young adults (men 20-44 and women 15-29) in Japan, selecting a location with a higher concentration of this specific demographic, will ensure that this thesis design has the most significant impact on the users that need it most.
  - Average age 40 = 10 points
  - Average age 50 = 1 point
- Urban Density:
  - Research has shown that higher density increases stress and anxiety levels. Since both of these factors contribute to increased suicide rates, a higher density area should be selected to ensure increased significant impact.
  - 20,000 people per square kilometer= 10 points
  - 10,000 per square kilometer= 1 point
- Access to Green Space:
  - Lack of greenspace significantly impacts feelings of crowdedness, as well as depression and anxiety. This thesis hopes to utilize the benefits of biophilia to take advantage of this fact. Therefore, its impact will be more significant if located in an area without convenient access to greenery.
  - Park within 20 minute walk = 10 points
  - Park within 15 minutes = 7 points
  - Park within 10 minutes = 4 points

- Park within 5 minutes = 1 points
- Access to air and light:
  - Because this thesis will be reliant on biophilia and the ability to introduce greenery into an urban environment, access to air and light is a programmatic necessity.
  - No party wall = 10 points
  - 1 party wall = 7.5 points
  - 2 party walls = 5 points
  - 3 party walls = 2.5 points
  - 4 party wall = 0 points
- Proximity to Aokigahara:
  - When contemplating suicide, one of the contributing factors to one's probability of completing the act, is due to means and opportunity. Closer proximity to Aokigahara results in the possibility of higher suicide rates.
  - Within 1 transfer of Shinjuku station = 10 points
  - Within 2 transfers = 5 points
  - Within 3 transfers = 1 points
- Contextual scale:
  - Because this thesis program calls for a low-rise building (approx. 5 floors), a vertically similar context is needed to ensure access to light and air.
  - 0-5 floors = 10 points
  - 6-10 floor = 9 points
  - 10-15 floors= 8 points
  - Etc.
- Infill Vs. Existing:
  - New construction will be utilized to ensure adequate programmatic freedom of the design.
  - Infill= 10 points
  - existing= 0
- Access to public Transit:
  - Access to public transit increases access to the Aokigahara forest, which (as discussed previously) contributes to suicide rates and the necessity of this design.
  - Within 5 minutes = 10 points
  - Within 10 minutes = 5 points
  - Within 15 minutes = 1 point
- Median income:
  - Financial insecurity is one of the most significant factors leading to stress. Additionally, lower income areas are more likely to be underserved, and therefore, more in need of this thesis design.
  - 3 million yen = 10 points
  - 6 million yen = 2 points
- Gender:

- Since men are more likely to complete suicide than women, seeking out this specific demographic will contribute to the significance of this thesis.
- 45% women= 10 points
- 50% women= 5 points
- 55% women= 1 point

#### Location Selected

Based on the previous information, 1 Chome-7-2 Nishishinjuku, Shinjuku City, Tokyo was selected as the current proposed site location. Located directly adjacent to Shinjuku station, this site is significant for a variety of cultural and practical reasons. From a practical perspective, Shinjuku station is significant for its density and popularity. It is the busiest train station in the world hosting over 3.6 million individuals a day (or over 1 billion annually),<sup>290</sup> it features 36 separate train platforms, and over 200 exits/entries.<sup>291</sup> The extreme business both inside and outside the station, creates an often-overwhelming atmosphere leading to stress and anxiety. By placing the proposed project within view of the station, the juxtaposition between the stress inducing station, and the serene office space would be clear. It could serve as a symbolic prescient for psychologically consensus building and could feature spaces of refuge not only for those working within, but to the public as a whole.

The train station holds further significance, as the many trains and buses passing through the stations means that almost every individual attempting to journey to the Aokigahara forest from Tokyo must pass through this location. In fact, express bussing -one of the easiest ways to travel to the forest, departs from a bus loop within

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<sup>290</sup> Thomson, n.d.

<sup>291</sup> Ibid

direct view of the site. By locating the site so close to a key point in the suicide story there is opportunity not only for symbolic significance, but also practical opportunities for programmatic spaces that could assist individuals traveling to this location for that purpose.

On a broader scale, Shinjuku is significant for several demographic reasons. Firstly, it is one of the densest neighborhoods in Japan.<sup>292</sup> Since increased density has been shown to correlate with increased stress levels,<sup>293</sup> it is logical to assume that stress levels in Shinjuku are most likely higher than in other areas of Tokyo. The stress levels in Shinjuku are further exaggerated by the inclusion of many high stress work environments within this area. A few blocks away from the site are the headquarters of many of the largest companies in Japan. Lawsons (a popular convenience store in Japan) house their headquarters in the iconic Lawson Shinjuku Center Building that has become a symbol of the corporate atmosphere in Japan and was even featured in the original Godzilla movie.<sup>294</sup>

Another significant building in the Shinjuku area is the Tokyo Mode Gakuen Cocoon Tower which is directly adjacent to the selected site. This innovative, modern building dominates the skyline and can be designated as a landmark and point of orientation for the area. Additionally, because of its use as a school, it is utilized by a much younger demographic than the average age of Tokyo residents. Based on the targeted demographic most effected by work stress and suicide rates in Japan, this fact is especially significant to the site selection.

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<sup>292</sup> Population Statistics, Charts

<sup>293</sup> Devlin 2018

<sup>294</sup> Bureau n.d.

Finally, this site is significant due to the scale of surrounding buildings and the potential for densification. Although the adjacent buildings to the west of the site (like the Lawson Centre building or the Cocoon Tower) are extremely tall (as high as 50 stories) the buildings to the east and south are relatively small, consisting of mostly low-rise retail buildings. Additionally, the area to the east of the site has enormous potential as it is currently under construction as part of the 400-million-dollar Shinjuku station renovation.

While this site will certainly feature many challenges (such as the complexity of the context, the density of the site, and the ever-changing station renovation), it has significant potential thanks to its proximity to Shinjuku station and the demographic factors present. Further advantages of this site over other locations are less tangible but are equally significant. The connection between the site and the journey to the Aokigahara forest will not only serve a practical purpose but will reinforce the symbolic significance of this site and the narrative being told through this thesis.

**Growing Past the Sea of Trees**

|                                   | <br><b>Minato District:</b><br>Significance located immediately adjacent to the Demu Building<br>Area approx. 30,000 square feet | <br><b>Shibuya Alternative Site:</b><br>1-chome 18-21 Shibuya<br>Significance only a few blocks from Shibuya Scramble Crossing<br>Area approx. 70,000 square feet | <br><b>Shinjuku District:</b><br>1-chome 9-1 Nishi-Shinjuku<br>Significance culturally significant location popular with young adults<br>Area approx. 70,000 square feet | <br><b>Shibuya District:</b><br>1-chome 22-11 Innar<br>Significance only a few blocks from Shibuya Scramble Crossing<br>Area approx. 3,000 square feet |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Age demographic:                  | 9 points                                                                                                                                                                                                          | 7 points                                                                                                                                                                                                                                            | 3 points                                                                                                                                                                                                                                                    | 7 points                                                                                                                                                                                                                                  |
| Urban density:                    | 2 points                                                                                                                                                                                                          | 7 points                                                                                                                                                                                                                                            | 5 points                                                                                                                                                                                                                                                    | 7 points                                                                                                                                                                                                                                  |
| Access to green space:            | 2 points                                                                                                                                                                                                          | 6 points                                                                                                                                                                                                                                            | 2 points                                                                                                                                                                                                                                                    | 6 points                                                                                                                                                                                                                                  |
| Proximity to Aokigahara:          | 5 points                                                                                                                                                                                                          | 2 points                                                                                                                                                                                                                                            | 9 points                                                                                                                                                                                                                                                    | 2 points                                                                                                                                                                                                                                  |
| Access to air and light:          | 10 points                                                                                                                                                                                                         | 8 points                                                                                                                                                                                                                                            | 5 points                                                                                                                                                                                                                                                    | 7 points                                                                                                                                                                                                                                  |
| Contextual scale:                 | 7 points                                                                                                                                                                                                          | 8 points                                                                                                                                                                                                                                            | 2 points                                                                                                                                                                                                                                                    | 6 points                                                                                                                                                                                                                                  |
| Infill Vs. existing:              | 10 points                                                                                                                                                                                                         | 10 points                                                                                                                                                                                                                                           | 10 points                                                                                                                                                                                                                                                   | 10 points                                                                                                                                                                                                                                 |
| Access to public transit (train): | 2 points                                                                                                                                                                                                          | 10 points                                                                                                                                                                                                                                           | 5 points                                                                                                                                                                                                                                                    | 7 points                                                                                                                                                                                                                                  |
| Median income:                    | 3 points                                                                                                                                                                                                          | 10 points                                                                                                                                                                                                                                           | 4 points                                                                                                                                                                                                                                                    | 10 points                                                                                                                                                                                                                                 |
| Gender dispersion:                | 2 points                                                                                                                                                                                                          | 5 points                                                                                                                                                                                                                                            | 2 points                                                                                                                                                                                                                                                    | 5 points                                                                                                                                                                                                                                  |

Figure 14: Site Option Matrix, 2024



Figure 15: Shinjuku Site, 2024



Figure 16: Views from Typical Commute in Shinjuku, 2024

### Section 3: Reframing the Forest

Perhaps the most difficult location to organize, the Aokigahara forest is symbolically the most important. Because of the extreme negative connotations and placemaking surrounding this site, it is crucial that some type of architectural intervention should be introduced in order to reorient this narrative. However, the exact location of this facility is difficult to define based on the pure scale of the site and the plethora of possible locations. Many of the reasons why individuals seek out the forest to complete suicide -such as its density and its isolation from civilization, are the very same reasons why selecting a site is so difficult. But while individuals usually travel deep into the forest, the practical difficulties with this, suggests that this healing facility should be located near the edge of the forest. Beyond the practical implications, it is also important to consider the environmental implications that

constructing this structure will have on the local ecosystem. Although the Aokigahara forest has gained notoriety as an extremely dark location, it is an immensely beautiful and ecologically significant location. Thanks to the volcanic activities in the area, the ground is extremely nutrient rich, resulting in lush vegetation and the perfect environment for wildlife. In order to preserve the many positive attributes of this location, the edge condition is the ideal choice for this facility. Additionally, because buses are the primary form of transportation, selecting a site along the common bus routes (primarily concentrated on Route 139), would increase visibility to the site, and would be practically the most ideal location.

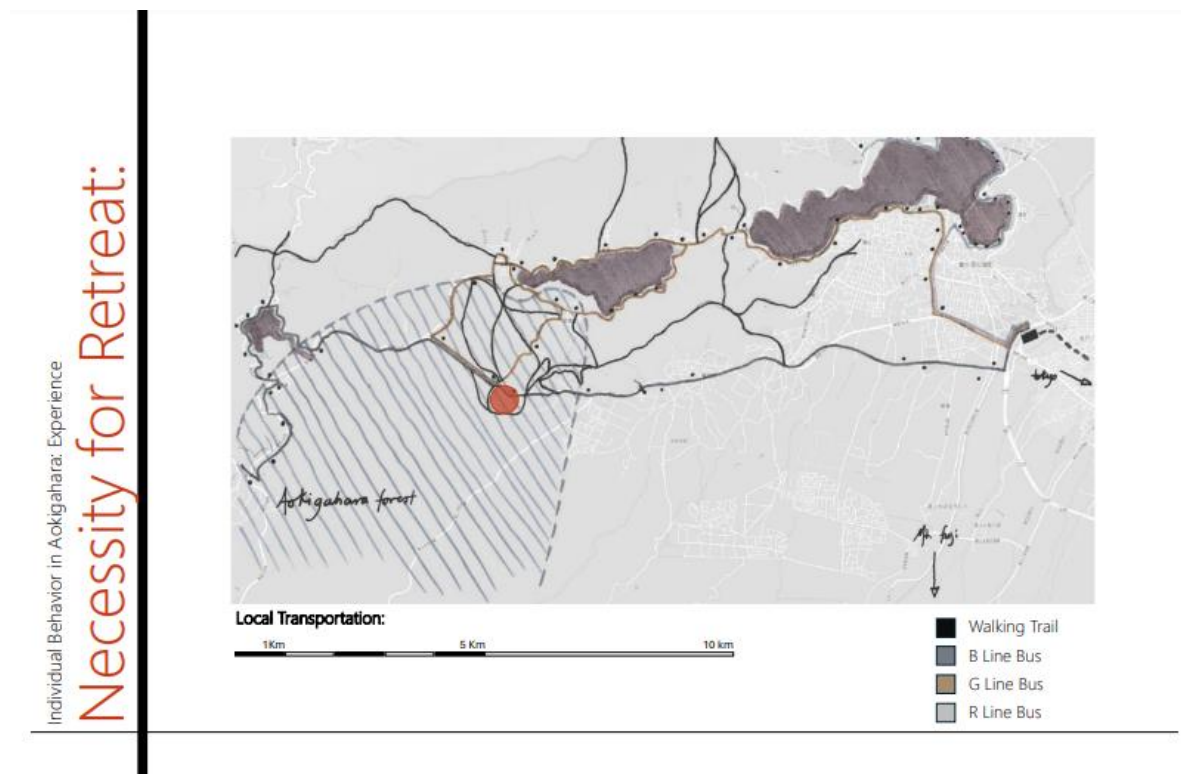


Figure 17: Transportation to the Aokigahara forest, 2024



Figure 18: Aokigahara forest site, 2024

## Chapter 7: The Program

### Section 1: Programmatic Importance

As a multifaceted, multi-layered issue, the solution to the high young-adult suicide rates in Japan cannot be solved through one solution but must meet users along every stage of this story.

Throughout the history of the Aokigahara forest, the narrative of desperate despair that originates from the societal, cultural atmosphere of mundane life, continues throughout the journey to the Suicide Forest, and sadly ends between the twisted trees. To disrupt this pattern, a program is needed that will meet users at each

of these crucial moments and provide them with opportunities to challenge the narrative. This thesis proposes a multifaceted approach that emphasizes prevention, awareness, and guidance.

## Chapter 8: The Design

### Section 1: Introduction

So with all of the issues presented, how does architecture fit within the narrative? What responsibilities do we as architects have to these issues? And how can we as architects assist individuals in seeing past The Sea of Trees? Throughout this thesis, three main strategies were implemented in both locations discussed. Views and access to nature were utilized to reduce work stress. Traditional Japanese architecture (including wood joinery and teahouse vernaculars), were utilized to bridge the gap between the taboo subject of mental health and the Japanese individuals it affects. And finally, programmatic organization based on traditional Buddhist temples were utilized to emphasize design clarity and encourage individuals to engage with the landscape and each other.

Because of the multifaceted nature of the issues, all of these strategies were utilized in both site locations listed. In Shinjuku Tokyo, these elements were utilized to juxtapose the overcrowded and hectic surrounding city -serving as a protected forest within the city. Contrarily, the same strategies were utilized within the Aokigahara forest to create a sense of organization and clarity among the isolating and dense landscape -serving as an organized city within the forest.

## Section 2: The Forest in the City

Since the stress, to depression, to suicidal ideation pattern first begins in with work stress, it is logical to first discuss the “Forest in the City” design. As illustrated previously, it is located directly adjacent to Shinjuku station, at the edge between a corporate and retail district. As such, it is in the perfect location to serve commuters on their way to and from the office. To emphasize this idea combined with the importance of circulation (as illustrated in previous chapters), a strong diagonal circulation path was placed directly through the center of the site. This path serves as a public pathway, allowing individuals to interact with the site with minimal impact on the programmatic activities occurring within the Zen Garden below, and the mid-rise office complex to the West.

Based on the importance of nature on mental health, the garden is featured prominently as the focal point of the site. Placed one story below the main circulation path, it is viewable from above, but inaccessible to the public user. This allows users to engage in the practice of forest bathing from above, while allowing only limited immersion to the garden paths below. Instead, access to the Zen Garden is only allowed through controlled entrances from the office complex or the restoration rooms that flank the east side of the site.

These restoration rooms serve both a practical and programmatic purpose, as their hill-like attributes create a visual and auditory buffer, while the tea houses inserted within them, create a quiet and protected space for reflection and restoration. From the street edge, the sloped occupiable green roof system creates visual interest from the train station’s plaza. Not only does this hint to the garden like nature

beyond, but it also serves the practical purpose of providing additional seating and green space for the plaza. Instead of simply serving as a barrier between the public and the site, the slices between the restoration modules create view-corridors into the site, enforcing the importance of views to nature -not only to those actively engaging with the site, but also to the casual passer-by.

The significance of views to nature are further enforced through the internal use of the restoration rooms. The barrier-like nature of the exterior to these restoration rooms, provides the privacy necessary for the interiors of these spaces. Each of the restoration rooms are based on the mathematical organization of traditional Japanese tea rooms, and the patterns of tatami mat layouts. Through this, each room is arranged in a slightly different way with each room increasing in size by one mat unit.

Additionally, the differences between these rooms is reinforced by the sectional qualities of the spaces. As each room increases in size, they also increase in height and sectional separation from the main path. By walking down a twisting small staircase, users are brought through a compressed space before they open up to the tea rooms and the views of the Zen Garden beyond. Additionally, this sectional quality also allows for a different framed view experience in each interior. While the smallest restoration pod with the longest stairway and lowest sectional placement is provided views out to the roots and base of the trees, the largest restoration room features no sectional change from the main path and therefore provided views out to the tree branches, giving individuals the impression directly interacting with the foliage itself. The impression of interaction with nature is further emphasized through the materials utilized on the site. Mass timber construction is the primary tectonic strategy used and

can be seen most prominently on the facade of the 10-story office building. Because the office building functions primarily as a backdrop to the garden below, the interior organization of the building is of lesser importance than the exterior aesthetic and tectonic quality. Utilizing the wood removed from the Aokigahara Forest (for the wellness center construction), Shinto philosophies of honoring the quality of materials is emphasized through the complex yet practical assembly of wood members. A sandwich column method is used to increase column width while allowing for joinery with the minimal use of metal fasteners. Cross bracing is pulled slightly away from the main structure, allowing it to become a design element further emphasizing the aesthetic appeal and importance of wood joinery.

Through these strategies, The Forest in the City design, combines traditional architecture along with views to nature and clear organization to create an environment that allows for interactions with nature, encouraging individuals to pause, reflect, and rejuvenate even within their daily lives.

Through this strategy, the intention is to provide the opportunity for daily restoration with the hope that intentional escape from stress will allow individuals the space to decompress rather than be in a continual state of fight or flight. With extended exposure to stress decreased, the stress cycle is interrupted and therefore can prevent stress related depression from ever developing.

However, with the dozens of factors that contribute to mental health, it is impossible to completely prevent all cases of depression. While stress and its close connection to work-place environments do have a significant impact, things like social pressures, individual biology, and personal traumas, will never fully be able to

be solved through architecture. Sadly, this means that -most likely, many individuals will still seek the Aokigahara forest as a “solution” to their mental health struggles. Therefore, prevention through restoration alone is not enough. A location that allows for healing through retreat, must be explored, and should be located at the core of the issue -in the heart of the Aokigahara Forest.



*Figure 19: Circulation through The Forest in the city, 2024*



*Figure 20: Traditional Architecture in The Forest in the city, 2024*



Figure 21: Views to Nature from *The Forest in the city*, 2024

### Section 3: *The City in the Forest*

While the Forest in the City primarily focuses on preventative methods of decreasing suicide rates, the design within the Aokigahara Forest, instead attempts to offer individuals opportunities to reconsider their decisions before entering the forest. Based on the prevalence of aborted and interrupted suicides, this site seeks to provide the circumstances necessary for these situations explained in Chapter 2. To this end, the three strategies of views to nature, interactive circulation, and traditional Japanese architecture are once again utilized, but instead implemented in a natural rather than urban landscape. Views out to nature provide users the opportunities to stop and reflect. The traditional programmatic importance of Japanese tea houses once again bridge the gap between cultural taboos and the importance of coping mechanisms.

And a clear linear path through the center of the site provides clarity and direction through the isolative and confusing site conditions.

This circulation path serves not only to provide clear wayfinding throughout the site, but also illustrates symbolically the journey intrinsic to the narrative of this thesis. Upon entering the site, individuals first encounter a series of stairs that lead them down below the ground line. In this way, individuals are forced to physically interact with the site, and ground themselves within the moment before they are permitted to engage with the forest. After their descent, users travel along a linear path that programmatically splits the site into two distinct areas. With the communal and rational spaces to the north, and the individual, natural structures to the south. In doing this, the views provided to the user on either side of the path are allowed to juxtapose, thus creating visual interest. On one side, the facades of buildings create a strong edge, creating structure and stability. Sites into the buildings allow even the casual observer to view the programs taking place within. Since the buildings provide programmatic space for positive coping mechanisms (such as group therapy sessions, community bonding experiences, and work retreats), transparent presentation of these programs can help to break down the stigma surrounding these types of activities. Contrarily, the Zen Garden to the on the other side of the procession provides a more familiar coping strategy to users. Microcosms in the form of stone gardens and water features provide unique views from the path as users progress along this journey. The utilization of building edge conditions combined with views out to a natural landscape, illustrate the connection between the design, and the ideals of traditional Japanese architecture. Within Japanese Buddhist temples, the organization of

circulation pushed to the edge of programmatic spaces allows for interstitial indoor/outdoor environments. This quality is further emphasized through the design as roof overhangs and facade details are allowed to extend beyond the building envelope, thus further blurring the lines between structure and nature.

While the linear path provides clear direction, large perpendicular stone walls are allowed to intersect the path, serving as physical barriers to users. While acting as structural members, these walls also serve the practical purpose of physically slowing individuals on their path to the forest, forcing individuals to further pause and reflect. Additionally, the framed views created by these walls increase visual interest, and control access to views beyond.

Also running perpendicular to the primary path, are the secondary circulation paths used to direct users towards the individual restoration units. Serving a similar programmatic purpose to hotel rooms, these units are provided for individuals who require longer opportunities to consider their purpose in the forest. Rather than staying in isolated campsites in the middle of the forest, individuals are provided comfortable, safe, and restorative interiors. The perpendicular paths not only allow for access to these units, but also serves a ritualistic purpose, as circulation to the community spaces requires a meditative walk very similar to those utilized in monastery design typologies.

Beyond these units, the full spiritual impact of this path is fully realized. As the topography drops below the path, users interact with the ground plane less and less, and instead are offered alternative views to the trees and foliage. At the end

observation deck, individuals are situated 20 feet above the ground plane, allowing for views to the treetops and beyond, past The Sea of Trees.



Figure 22: Site Organization in *The City in the Forest*, 2024



Figure 23: Views to Nature from *The City in the Forest*, 2024



Figure 24: Traditional Zen Gardens in *The City in the Forest*, 2024

#### Section 4: Conclusion

This thesis has attempted to show how architectural interventions (in the form of both a restorative office and a forest retreat), can be utilized to confront issues such as cultural stigma, work stress, and complex site conditions. Through the use of biophilia, traditional Japanese architecture, and interactive circulation, architecture can bridge the gap between psychology and the built environment, Western and Eastern coping mechanics, stigma and tradition, and natural landscapes and the urban environment.

However, it is important to realize that architects can never fully predict how an individual will utilize their design, or how the purpose and intention of said design may adapt and change throughout the years. At the end of the day, this thesis is not

the solution to suicide rates in Japan, it is a study into the role that architecture plays in the development of psychological disorders. This thesis serves as a starting point to open up discussion and opportunities for further research and implementation of the architectural elements described. While architecture is certainly not the only solution to these issues, it does have an important impact on the quality of life, coping opportunities, and environmentally driven behaviors individuals encounter.

At the end of the journey from the Zen Garden in the city, to the restorative wellness center in the forest, individuals are met with the option to either return to the visitor center through a series of Zen Garden paths or continue their journey forward into the forest. The completion of suicide is an individual decision, and therefore, cannot be controlled by architecture. Instead, it is our responsibility as architects to ensure that our buildings do not contribute to the issue, that the environments that we create provide every opportunity for individuals to deviate from this decision, and that our designs assist individuals in seeing past The Sea of Trees...

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