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Potential Benefits of The Campus Outdoor Built Environment On Student Stress, Leading to Improved Retention

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A dissertation submitted to the

Southern Methodist University

Simmons School of Education & Human Development

in partial fulfillment of the requirements

for the degree of Doctor of Liberal Studies

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ABSTRACT

University landscape managers often ask themselves, are they making a difference? Since what they do is not a revenue-generating department, how can they validate their true worth beyond making the campus beautiful, which is excellent, but what added value do they bring? As is common practice, when economic times get tough, the landscape department budget is one of the first to be cut, but is that the wisest thing to do? This research was intended to explore the concept that the services landscape managers provide have a return on investment by providing an environment in which students can thrive and be successful. This study aimed to investigate whether there is a relationship between the quantity and quality of a campus landscape and the desire of students to remain at their chosen university. To get a sense of how students feel about the campus's outdoor built environmental features and amenities, a survey of the currently enrolled first-year through fourth-year students was performed using an instrument developed by a Doctoral student from Kent State University. The one thing that did stand out was the importance of formal and informal outdoor meeting places for the students: they overwhelmingly desired additional places to meet outdoors. The most significant trend was how essential the outdoor environment was toward supporting students' well-being and mental health. The study's results indicated relevance between the campus outdoor built environment and students' physical and mental health, promoting less stress, leading to a more successful student, and encouraging them to continue from one semester to the next, ultimately leading to graduation. The findings of this study may help university administrators better understand and appreciate the level of connection students have with the physical campus environment and can provide other landscape managers with the information needed to deliver the same services at their university.

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INTRODUCTION

Statement of the Problem

Does the campus architecture and landscape, otherwise known as the campus outdoor built environment, impact student retention? If so, what role do thoughtful landscapes at colleges and universities play? Due to the changing demographic and evolving student base, a purposeful landscape design, including adequate landscape spaces, is essential to the success of a higher education campus by helping to reduce student stress. Spaces that are communal, collaborative, active, connected, relaxing, meditative, and even technologically advanced are now integral parts of the outdoor built environments at a college or university. There are many examples of how an outdoor built environment is described. For the purpose of this research, the concept includes landscape, trees, green spaces, sculptures, fountains, outdoor formal and informal meeting places, benches, campus lighting, trash, recyclable receptacles, sidewalks, and style of architecture. Many institutions use their landscape spaces for more than just connecting from one building to another. Some of American college campuses' most influential and cherished settings are the outdoor spaces that stitch buildings together (Sasaki, 2018). Outdoor classrooms, science gardens, learning spaces, sports, and activity spaces bring new meaning to landscape architecture for colleges and universities (Kudela & Weinheimer, 2016). Appreciating where people prefer to gather, understanding contemporary students' behaviors and learning styles allows campus landscape spaces to become much more than aesthetic resources to walk by and serve as outdoor social and learning centers (Spooner, 2006). These formal and informal meeting places can help new students who utilize campus landscape spaces to reduce stress, and develop a connection with their campus, creating a more meaningful relationship with their chosen university.

Brief History of Landscaped Gardens

The relationship between landscapes, gardens, and humans has a long history that has significantly impacted how we have developed as a society. Landscapes and gardens are pretty to look at and have a solid emotional connection with us, dating back thousands of years. Understanding why we have this connection and its importance helps to review the history of landscaped gardens and the evolution of garden types. By understanding how we got to where we are, humans can better appreciate why we have that instinctive emotional response that makes us feel happy or sad when we look at a specific kind of landscape.

Throughout the history of human civilization, landscapes have been an integral factor in our progress as a species. We are connected to the land. As humans went from hunters and gatherers to gardeners and farmers, we forged a connection to the land (Wallace, 2022). Throughout the history and tradition of Western Civilization, the landscaped garden has served as an important location for change, the Garden of Eden, the Garden of Gethsemane, and the Monastic Gardens leading into the Renaissance (Lambert, 2021). The first instances of landscaping include the Hanging Gardens of Babylon. Considered one of the world's seven wonders, these gardens were created by King Nebuchadnezzar for his sickly wife, who missed the plants and flowers of her homeland in Persia ("The History," 2021). Landscape design has always been regarded as a sign of modern elegance, becoming more prestigious and popular. Nature has always remained an inexhaustible source of vital forces of inspiration (History Annex, 2018).

The earliest gardens were grown for practical reasons, including herbs or vegetables. However, when humans became enlightened, an upper class emerged with the leisure time to enjoy purely decorative gardens. Gardens and parks became the place for the reception of guests,

meetings, and festivities. The garden's beauty is seen not only in individual details but also in the complete creation. In the earliest times, the culture of the ancient East, which is one of the foundations of world culture, was influenced by landscape art. The natural conditions were significantly different, depending on the geographical location of the area. However, the beauty of ancient gardens, preserved in frescoes and art canvases, continues to amaze our contemporaries (History Annex, 2018). We may think of gardens as peaceful places today, the perfect spot for dozing on a lazy afternoon, but their history is more complex. "Gardening can be understood as a form of space-time medicine," writes Dr. Stuart-Smith (2020), a psychiatrist based in England who created the Barn Garden, in Hertfordshire, with her husband, Tom Stuart-Smith, a landscape designer.

It was a humble garden that first encouraged humans to rise from roaming hunter-gatherers to settled farmers around 10,000 years ago, as jungle plots gave way to fenced enclosures and crops (Lambert, 2021). At the core of landscape design's history is agricultural development. Though specific details of the first garden remain unknown, historians imagine the first enclosure was a barrier used to discourage animals and marauders (Lambert, 2021). Beauty and aesthetic function evolved from there, with ancient Japanese gardens designed to facilitate meditation and spiritual connection and ancient Chinese gardens designed as both reflective and social spaces (Optima, 2020). Garden construction and design was a precursor to landscape architecture, beginning in West Asia and spreading westward into Greece, Spain, Germany, France, and Britain. The whole history of humanity is tied up with landscapes and gardening, meaning that these spaces have changed dramatically over time and across cultures. It should be noted that the change of styles evolved naturally, connecting one another and gradually displacing older trends (Lambert, 2021)

Assyrian Gardens

In ancient times, beautiful gardens were created in Mesopotamia, now Iraq. The Assyrians came from Mesopotamia, and in the period 900 BCE–612 BCE, they ruled a great empire in the Middle East. Upper-class Assyrians introduced the idea of large wooded hunting parks with small pavilions used for meditation and leisure (Wallace, 2022). The Assyrians planted trees in rows, such as palms and cypresses, sometimes alternating species (Lambert, 2021). The gardens of Assyria, Babylon, and Persia were of three kinds: large, enclosed game reserves; pleasure gardens, which were essentially places where shade and cool water could be privately enjoyed; and sacred enclosures rising in artificial terraces, planted with trees and shrubs, forming an artificial hill such as the Hanging Gardens of Babylon (Clifford, 2022).

Ancient Gardens of 500 BCE

In 539 BCE, the Babylonian Empire was destroyed by the Persians, who created yet another great empire, and were superb gardeners (Lambert, 2021). Persian influences extended to Hellenistic Greece after Alexander the Great, where around 350 BCE, there were gardens at the Academy of Athens. Theophrastus, who wrote on botany, supposedly inherited a garden from Aristotle, Epicurus had a garden where he walked and taught, and Alciphron also referenced private gardens in his writing. The most influential ancient gardens in the western world were those of Ptolemy in Alexandria, Egypt, and the horticultural tradition that Lucullus brought to Rome. Wall paintings in Pompeii attest to later elaborate development. The ancient Romans and Greeks used the landscapes as home as often as their actual houses (History Annex, 2018). The Greeks were not great gardeners, although they sometimes planted trees to shade around temples and other public places. Although Greek travelers admired the gardens of the East, Greek gardens were usually grown for practical reasons, such as orchards, vineyards, and vegetables

(Lambert, 2021). Greek gardens comprised a combination of an orchard, vineyard, and floral display with a fountain as a focal point. Greek mythology heavily influenced the introduction of sculptures to the garden (Wallace, 2022).

Roman Gardens

The wealthiest Romans built extensive villa gardens with water features, including fountains and streams, topiary, roses, and shaded arcades (Wallace, 2022). The Romans created courtyard gardens within the boundaries of their properties for the enjoyment of their family and friends, and royalty would plant profuse amounts of flowers and trees as a symbol of their wealth ("The History," 2021). When they conquered Egypt in 30 BCE, the Romans introduced eastern ideas about gardening. For example, wealthy Romans created gardens next to their palaces and villas. The Romans were masters of topiary art, and their gardens were adorned with statues and sculptures and laid out with hedges and vines. Marcus Vitruvius Pollio, better known simply as Vitruvius, a Roman author, and engineer, wrote the oldest existing design manual in 27 BCE, *De architectura libri decem, Ten Books on Architecture.* This book addressed design theory, landscape architecture, engineering, water supply, and public projects like parks and squares. Vitruvius asserted that *firmitas,* firmness, durability, strength; *utilitas,* commodity, convenience, utility; and *venustas,* delight, loveliness, and beauty, were the primary objectives of the design. Some still consider these elements essential to the quality design of a landscape (Lambert, 2021). Romans developed the initial elements of urban design and spatial organization. After the fall of the Roman Empire, medieval gardens became primarily utilitarian, focusing heavily on food production and medicine (Wallace, 2022).

Egyptian Gardens

Egypt introduced advanced irrigation methods, geometric planning, walled cities, and the labyrinth, which later influenced the development of mazes, a popular element in medieval and Renaissance gardens (Wallace, 2022). In ancient Egypt's hot and arid climate, the wealthy people liked to rest in the shade of trees, created gardens enclosed by walls with trees planted in rows, and sometimes planted alternating species. The Egyptians also grew various flowers, including roses, poppies, irises, daisies, and cornflowers (Lambert, 2021). The Egyptians believed that the gods liked gardens, so temples usually had gardens next to them. Egyptian gardens also had religious significance as different trees were associated with different gods. However, there was no strict division in Egypt between gardens for pleasure and gardens for produce. As well as being beautiful, gardens were used to grow fruit and vegetables and to produce wine and olive oil (Lambert, 2021). The earliest surviving detailed garden plan, dating from about 1400 BCE, is of a garden belonging to an Egyptian high court official at Thebes. The main entrance is aligned on a pergola with trellis-bordered walks of vines leading directly to the dwelling. The rest of the garden has tree-lined avenues, four rectangular ponds containing waterfowl, and two garden pavilions (Clifford, 2022).

Islamic/Persian Gardens

Persian gardens were influenced by the walled cities of Egypt, the hunting lands of Assyria, and other gardens in foreign lands. Because water was a precious commodity in these hot and arid locations, it played a central element in the garden, with fountains usually centrally located (Wallace, 2022). Formal gardens were elevated to an art form in Islamic culture and refined for centuries under the Persian Empire. Known as *chahar bagh,* beginning in the 10th century, these walled spaces tended to follow a strict plan that fanned out from a central

fountain; at this crucial point, four rivers or watercourses met, representing the four rivers of paradise (Lambert, 2021). Islamic gardens represent cultivated spaces across the diverse span of Muslim history and geography, created and set apart from the wilderness of various kinds. They were designed to enhance the humanly constructed environment, ornament the landscape, and symbolize cultural and religious values and aspirations. The rise of Islam in the seventh century emphasized that paradise was a garden. Islamic gardens were designed to be looked on from above and to tease all senses by incorporating fragrant plants, colors, textures, and water features (Wallace, 2022). As such, they are, together with architecture and the arts, among the most significant and enduring Muslim expressions of the role and relationship of nature in its broader sense to human beings. Gardens and landscape architecture in Muslim societies have been essential expressions of ethical assumptions about stewardship, ecology, and beauty (Lambert, 2021). The most characteristic of these gardens was the use of water, the ultimate luxury to desert dwellers, who appreciated it not only because it allowed plants to grow but also because it cooled the air and gratified the ear with the sound of its movement (Clifford, 2022).

Chinese/Japanese Gardens

Another cultural tradition that turned gardens into an otherworldly experience came from the Far East. Japan's *nihon teien* does not follow the same geometric patterns as the Persian *chahar bagh,* but they still encode vast information about Japanese culture. Blending natural elements such as weathered rocks and bubbling streams with manufactured pagodas and bridges, these formal gardens seem haphazard but are governed by Zen philosophy. A different horticultural tradition formed in China, which was transmitted to Japan, developed into aristocratic gardens featuring miniaturized and simulated natural landscapes centered on ponds, and the Zen Garden form featured at temples (Lambert, 2021). The scaling down of landscapes

to garden size was logically continued to the point where miniature gardens were made in trays as small as a foot square containing lakes, streams, islands, hills, bridges, garden houses, and real trees painstakingly cultivated to an appropriate scale known as *bonsai*. These small, portable gardens reflected the extreme of the picturesque tradition of Eastern gardening (Clifford, 2022).

In China, large parks with expansive water features included islands to attract mythical immortals so that people could discover the secret of long life. The emperor was the only one who could implement these imperial gardens, while other Chinese gardens were more modest. During the T'ang dynasty, China and Japan exchanged ideas and goods. Chinese gardens heavily influenced Japan. Being smaller, however, Japan adapted the significant features of Chinese gardens to small-scale Zen gardens. The Zen philosophy influenced the Japanese garden movement by introducing features symbolic of natural elements. These included carefully placed boulders in screened sand, suggesting islands amid a body of water. The gardens were designed to encourage contemplation and self-exploration (Wallace, 2022). Based on natural scenery, Chinese gardens avoided symmetry. Rather than dominating the landscape, the many buildings in the garden grew up as the land dictated. A fanciful variety of designs, curving roof lines, and the absence of walls on one or all sides brought these structures into harmony with the trees around them (Clifford, 2022).

Italian Renaissance Gardens

The rediscovery of descriptions of antique Roman villas and gardens led to the creation of a new form of a garden, the Italian Renaissance Garden, in the late 15th and early 16th centuries. The Renaissance era gave a great impetus to the development of landscape art. In this period, instead of hard-to-reach fortresses with their limited space, lodges were built with extensive park and garden areas (Lambert, 2021). Gardens and parks become the place of

reception of guests, meetings, and festivities. The garden's beauty is seen in individual details and a complete composition (History Annex, 2018). In Europe, gardening was revived in Languedoc and Île-de-France in the 13th century. The formal garden *à la française*, exemplified by the Gardens of Versailles, became the dominant horticultural style in Europe until the middle of the 18th century when the English and the French landscape gardens ascended to dominance (Lambert, 2021). During the Italian Renaissance, gardens were designed with humanistic rather than fundamental values. Mathematics, geometric patterns, and a strong relationship between the villa and the garden formed the basis of this garden movement (Wallace, 2022). Western Europe's increasing prosperity and confidence in humankind's capacity to impose order on the external world were reflected in Italy's gardens by the mid-15th century. The change began near Florence, where the old medieval enclosures began to open up (Clifford, 2022).

Baroque Period Gardens

The Baroque style, lavish, sumptuous, highly ornamental, theatrical, and flair for the dramatic, also significantly contributed to landscape art (Lambert, 2021). At this time, the garden began to merge with the surrounding landscape. For this purpose, a special viewing platform was provided with a view of the corresponding parts of the adjacent territory. The garden was merged with the surrounding landscape by the device of alleys, paths, artificial grottoes, and other similar features (History Annex, 2018). Before the Baroque period, originating in the late 16th century in Italy, European gardens had retained echoes of their working roots, with herb beds and wildflower borders. The Palace of Versailles, a former French royal residence, changed everything. The grand project of France's King Louis XIV turned the European garden into a display of power and politics, with sweeping grand avenues, vast feats of engineering, and intricate geometric planting all designed to show the owner's mastery over nature. This design

was gardening as theatre, forcing everyone who entered to become an actor in the owner's play (Lambert, 2021).

Sixteenth and Seventeenth Century Gardens

With the emergence of the first civilizations, wealthy citizens began creating gardens for purely aesthetic purposes. Egyptian tomb paintings of the 16th century BCE are some of the earliest physical evidence of ornamental horticulture and landscape design depicting lotus ponds surrounded by symmetrical rows of acacias and palms. In the 16th and 17th centuries, the ideas of ancient Greece and Rome were revived. Ideas about gardening changed, influenced by classical philosophies. During this time, symmetry, proportion, and balance became important. Very often, gardens were laid out with a central axis leading down from the house with several cross axes forming a grid pattern. Flower beds were often laid out in squares, separated by gravel paths adorned with sculptures, fountains, topiaries, and gardens were further divided into segments by hedges (Lambert, 2021).

Eighteenth Century Gardens

In the early 18th century, many people rebelled against formal gardens and preferred a more natural style. Two famous gardeners of the 18th century were William Kent (1685-1748) and Charles Bridgeman (1690-1738), but the most famous gardener of the 18th century was Lancelot 'Capability' Brown (1715–1783). Kent and Bridgeman mixed formal and informal elements in their gardens, but ‘Capability’ Brown adopted an informal style (Lambert, 2021). He wanted to improve nature, not rework it. Brown sought to remove the roughness of a landscape and perfect it, but afterward, it should be almost indistinguishable from a landscape created entirely by nature (Lambert, 2021). After Brown came Humphry Repton (1752-1818). He first

became a gardener in 1788, and even within his lifetime, there was a change from the informal landscaping style to more formal gardens.

Meanwhile, in 1725, the Society of Gardeners, a registered charity aimed to make a permanent contribution towards beautifying London by growing flowers and shrubs, thus improving the urban environment, was founded in England. In London, public gardens were created, although visitors had to pay to view them. In the 18th century, pleasure gardens were still only for the upper and middle classes whereas, if poor people had a garden, they had to use it for growing herbs or vegetables. They had neither the time nor the money to grow plants for pleasure (Lambert, 2021). In 18th-century England, people became increasingly aware of the natural world. Rather than imposing their artificial geometric order on the natural world, they began to adjust to it. Literary men, notably Alexander Pope and Joseph Addison, began questioning the propriety of trees carved into artificial shapes as substitutes for masonry and advocating the restoration of free forms (Clifford, 2022).

Nineteenth Century Gardens

In the 19th century, along with well-trimmed lawns, massed or carpet bedding of flowers became popular. There were other changes as well. In the 19th century, the middle class grew in numbers and wealth, and great estate gardens attached to suburban villas became important. A new style of garden evolved called gardenesque, characteristic of or resembling a garden, as opposed to a natural setting; more formal, which displayed a wide variety of plants in a limited space (Lambert, 2021). In the late 19th century, a more natural gardening style became fashionable, led by gardener William Robinson (1838-1935). Publishing his ideas in *The Wild Garden* in 1870, Robinson advocated planting a mixture of trees and shrubs, perennials, and bulbs.

Furthermore, in the 19th century, towns and cities boomed in size, forcing workers to be herded together in cramped and unsanitary houses. As a result, local authorities began creating public parks for them (Lambert, 2021). Also, a flurry of historical revivals and romantic cottage-inspired gardening emerged. In England, Robinson and Gertrude Jekyll were influential proponents of the wild garden and the perennial garden, respectively. Andrew Jackson Downing and Frederick Law Olmsted adapted European forms for North America, significantly influencing the design of public parks, campuses, and suburban landscapes. Olmsted's influence extended well into the 20th century when nature became the basis for the garden, and architecture began to play the role of an additional element emphasizing the natural environment (Lambert, 2021). Increasing world trade and travel brought to late 18th-century Europe a flood of exotic plants whose flowering period significantly extended the potential season of the flower garden. The accessibility of new plants, together with the desire for new experiences and a high-minded concern with natural science, not only gave renewed life to the flower garden but was the first step toward the evolution of the garden from a work of art to the museum of plants (Clifford, 2022).

Twentieth Century Gardens

At the end of the 19th century and the beginning of the 20th century, some gardeners were influenced by the arts and crafts movement, yearning for a past age of individual craftsmanship. Influenced by the movement, some gardeners envisioned an idealized view of old-fashioned cottage gardens. They designed gardens with trellises of flowers, neat hedges, and old-fashioned English flowers (Lambert, 2021). In the late 19th century, Frederick Law Olmstead became known as the Father of American Landscape Architecture. His aesthetics incorporated sweeping lawns into building design, influencing the US Capital, Central Park in

New York City, and city planning in Chicago and Cleveland (Optima, 2020).

There was a new movement in architecture and gardening called modernism. The modernists rejected copying old gardening styles and advocated starting afresh using modern materials, desiring their gardens to be uncluttered (Lambert, 2021). Between evolving urban and suburban landscapes, people's desire for organized green space led to highly evolved outdoor landscaping, gardens, and living spaces (Optima, 2020). In the 20th century, as incomes rose, gardening became a popular hobby among all social statuses. The most characteristic of the 20th century was operational planning, in which landscape architects concentrated on arranging open spaces surrounding factories, offices, communal dwellings, and arterial roads. Such planning aimed to provide, at best, a satisfactory setting for the practical aspects of living (Clifford, 2022).

Thomas Jefferson influenced the development of the American landscape. His funding of the Lewis and Clark expedition led to the Louisiana Purchase and the expansion of the United States. The expansion made a significant impact on plant exploration. Plant collecting was a primary interest of Jefferson's and resulted in thousands of newly documented plant species. These plants were then introduced to English plant collectors, and a prospering horticultural industry developed in the new world. Jefferson's design of the University of Virginia's campus, influenced by his stay in France, affected the design of college campuses throughout the United States (Wallace, 2022).

Significance of the Study

Like stressing over finals, many things remain a tradition in college, but the type of students attending college is not one of them. Since 1996, student populations have shifted from the traditional fresh-out-of-high-school, full-time-attendee who celebrates dorm life in their university-branded pullover with zero financial burdens to a more non-traditional student. If this is the situation, why are many institutions still tailored toward the traditional student (Driscoll, 2020)? Students who fit the traditional 18 to 22-year-old college demographic, with little money and family-related responsibilities, enjoy an experience designed with them in mind. In contrast, other students must go out of their way to adapt (McDonnell, 2004).

Changing demographics and student expectations are the most significant challenges facing leaders in higher education. The number of U.S. high school graduates is primarily flat and projected to remain that way until it declines by the middle of the next decade (Hussar & Bailey, 2018). The cohort that arrives on campus in the 2020s will be more racially and ethnically diverse and include more first-generation and low-income students than any other group of undergraduates previously served by American higher education. Furthermore, those recent high school graduates will hail from Generation Z, a group with different expectations than Millennials (Selingo, 2018).

Over recent years, student demographics have changed. The majority, 55%, of students are still under 21 years old, but the traditional conception of a college student, where they enroll directly after high school, live in dorms, and take a full course load, only applies to some. Today's colleges attract older students, and many have responsibilities outside of the classroom. Forty-one percent of current college students are over 25 years old, and 26% have children (Schroeder, 2018). Today's college students are primarily concerned about their financial

security, the nation's state, climate change, and their peers, among other things (Schroeder, 2018).

The life of the typical undergraduate looks much different today than it did ten years ago. For instance, while students once had to either attend class or miss out on the material entirely, today's students have the luxury of watching recorded lectures online whenever they please. Moreover, while students used to call their randomly assigned roommates before move-in day to introduce themselves, incoming first-year students now communicate with their future roomies online and via text for weeks, well before they even step foot on campus (Greenwald, 2019). Cannot make it to an eight a.m. biology lecture? No problem. Nowadays, several college classes are recorded and later put online for students to use as study material. Furthermore, students can always refer to their online textbooks, notes, and other virtual course materials for classes not made available in video format. The internet has made college more accessible, but at what cost to students' social well-being?

Student populations at colleges have evolved demographically since 1970. According to the 2018 State of the Student research project conducted by education technology company Chegg, which sampled more than 1,000 college students in the U.S., current minority enrollment is 42%, a sharp contrast from 15% in 1970. Currently, females make up more than half of the student population; in 1970, they made up less than half. Students are also older; 40% of college students are older than 25, compared to 28% in years prior (Hoffower, 2018).

Student Populations at Colleges	1970	2018
Minority Enrollment	15%	42%
Female Enrollment	<50%	>50%
Older Than 25 years old	28%	40%

Females are not the only demographic group taking the lead in college classrooms. The 2016 U.S. Bureau of Labor Statistics report revealed that the college enrollment rates for 2016 Asian high school graduates, Hispanic high school graduates, and Black high school graduates were 92.4%, 72%, and 58.2%, respectively (Greenwald, 2019). Seeing as only 56% of Asians, 22% of Hispanics and 31% of Black individuals between the ages of 18 to 24 were enrolled in college as recently as 2000, this is a far cry from the lack of diversity people saw in college campuses in the 20th century (Greenwald, 2019).

College students are pressured to perform well, take on internships, and maintain jobs. Moreover, these responsibilities put pressure on undergraduates more than ever before. One survey from The American Institute of Stress found that from 2003 to 2008 alone, the number of students who noted frequently experiencing stress in their daily lives increased by 20% (Greenwald, 2019). Stress is usually defined as how individuals respond psychologically, physiologically, and often behaviorally to situations that challenge or threaten their well-being (Ulrich et al., 1991). The increasing demand for psychological services also reflects the high diversity of college campuses, representing the full range of the late adolescent and young adult population. As the uniformity of college campuses has declined, students may need to deal with classmates with quite different value systems, political perspectives, and styles of arguing and self-presentation, which may, in turn, raise psychological issues (Mintz, 2019).

Many students suffer from pressures for perfection that are self-imposed and that arise from parental expectations. Many students, especially in Science, Technology, Engineering, and Mathematics fields (STEM), feel underprepared, overwhelmed by academic demands, and overcome by competition for high grades. Other students feel out of place, or their college experience fails to live up to Hollywood-fueled expectations. Furthermore, many students, free

for the first time in their life from close adult supervision, must manage their time in unfamiliar ways, negotiate conflicts with friends and roommates on their own, and manage academic and often financial stress without much emotional support (Mintz, 2019). From 2005 to 2015, the proportion of first-year students who said they occasionally or frequently feel overwhelmed increased by ten percent, according to the Huffington Post. Denise Hayes, president of the Association for University and College Counseling Center Directors in 2011, told the publication that this could be linked to financial pressures and stress to succeed (Hoffower, 2018). This increase in stress may be because contemporary students are balancing more in addition to their schoolwork. According to a study by the Center for Education and the Workforce at Georgetown University, 70 to 80% of students have a job while attending school, and 40% of them work more than 30 hours a week, exceeding the 15-hours-a-week cap they should maintain without hurting their academics (Hoffower, 2018).

Today's college students are quite different from those outdated stereotypes, and they come from a wide range of economic, social, and cultural backgrounds (Schroeder, 2018). College students today are paying more for their education than any generation of students before them. High tuition costs force students and their parents to take out high-interest-rate loans that can take decades to pay off. Leaving college with that much debt delays many young graduates' ability to buy a home, start a business, be active consumers, and even move out of their parent's house (Schroeder, 2018), and finding a job after graduation is more challenging than it once was. Essentially, the job market is oversaturated with qualified employees who compete for the same positions. As a result, 40% of college graduates have to take jobs after school that do not require a degree. Furthermore, even those earning a full-time job after graduation will likely receive a lower starting salary than their parents did when they left college

(Schroeder, 2018). The lack of positive news is upsetting for everyone, but each negative story reminds them of the future they face as young college students. Consequently, this has driven many people to be more politically active. Taking action makes people feel more in control, which helps mitigate their stress. Part of what causes the heightened stress level is the uncertainty about what is happening in the world (Schroeder, 2018).

LITERATURE REVIEW

Effects of Environment on Early Human Development

Much of the research on humans and our connection to the environment revolved around the theory that because we evolved in and with the environment, we have been affected by and have affected the environment, which continues to this day. Our connection to nature revolved around our instinctive need for survival which has been imprinted on our DNA and continues to influence us even now. Humans often do not realize this relationship even exists, but this connection affects how we react to nature, both good and bad. The nature we encounter the most is the landscape we interact with daily, and how we respond to that landscape is influenced by many factors. Our early human development is one of the most important. Understanding how this connection happens and how important it is to us helps to put into perspective just how much we depend on nature and how important it is for us to protect it. Knowing where we came from and how we evolved may help us better understand how we act and interact as humans today.

Climatic changes played a role in the evolution of early humans. Evidence is building that past climate change may have forged some of the defining traits of humanity. Earth's climate has always been in a state of unrest. Since our ancestors branched off the primate evolutionary tree millions of years ago, the planet has faced drastic swings between moist and dry periods and long-lived glacial freezes and thaws. Early humans could survive such changes, and our

existence confirms their success. In particular, a few giant evolutionary leaps, such as bigger brains and complex tool use, seem to coincide with significant climate change (Handwerk, 2014). Any period in this changing landscape could be picked, which may have affected a different trait. For example, it is reasonable to theorize that our ancestor's brains might have expanded when the lakes were highly variable because hominins had to become more intelligent to determine where their next meals would come from (Maslin, 2013). Studies of later periods, such as the Middle Stone Age, about 80,000 to 40,000 years ago, link rapid climate change that created wet conditions in South Africa to innovations in language and cultural identity, including symbolic engravings and shell jewelry. The rise of agriculture roughly 10,000 years ago coincided with shifting climates after the last glaciation. Some scientists have theorized that retreating ice made it more accessible or even necessary for humans to domesticate plants in the Near East (Handwerk, 2014).

Scientists speculate that humans adopted agriculture when temperatures were relatively stable at the end of the last glaciation period. The better climate meant more resources and vegetation available for humans; therefore, the small mobile groups could reside in one area for extended periods. Agriculture was a turning point in early human life because humans began to alter their surroundings for survival (Ponting, 1991). The relationship between early humans and their environment is highly complex. On the one hand, the human race survived and prospered despite the climatic difficulties. On the other hand, the development of early humans directly caused the extinction or near-extinction of many species and possibly affected the atmosphere and climate. This focus on adaptability has begun to change how researchers think about the significant milestones in human evolutionary history (Ponting, 1991). It is not about the survival of the fittest but the survival of those most adaptable.

Over the past six million years, evidence of dramatic climate variability, cooling, and drought has stimulated research about whether an environmental change has been a significant causal factor in developing our specie's defining characteristics. Examples of the evolution of bipedalism, earliest known toolmaking, distribution of *Homo erectus*, extinction of Neanderthals, and the global spread of *Homo sapiens* all point to the emergence of adaptability in response to environmental uncertainty as a persistent theme in human evolution. A combination of African paleoclimate data suggests that significant events in human origins tended to occur during lengthy eras of strong climate fluctuation (Potts, 2012).

Before the 1970s, there was little consideration of the environmental change in studying early human evolution. The causes of human evolution focused primarily on inherent factors, in which the evolution of earlier adaptations set the stage for the origin of later adaptations. Accordingly, human qualities arose as a package as each crucial feature depended on the others (Potts, 2012). The climate's role in our evolution has been debated for over a century. It seems environmental change, rather than a particular environment made us who we are. "Periods of wildly changing climate seem to have driven some of the significant evolutionary steps that made us who we are, says Rick Potts from the Smithsonian Institute in Washington DC (Potts, 2012, pp. 151-167)." However, by the 1990s, Potts had a new theory. "I realized that the critical part of the human evolutionary story is how our lineage was able to become so versatile, capable of invading habitats everywhere," He says. "We are not master savannah inhabitants, we are master invaders." This epiphany led Potts to suggest that an environmental change, not a particular environment, drove human evolution. "A rise in variability of climate places a premium on being nimble, versatile, to ensure survival, he says (Potts, 2012, pp. 151-167)". "I think, that the evolution of humans into large-brained, bipedal animals… has come about

through a close and adaptive relationship with changing climate," says Varsha Pilbrow from the University of Melbourne in Australia (Slezak, 2015, p. 1).

The environmental study of human origins investigates how environmental dynamics affected the survival challenges faced by early hominin populations. It seeks to understand how those challenges triggered the evolution of new adaptations by natural selection, the fundamental process responsible for the origin of an organism's adaptive characteristics (Endler, 1986). "It's the first attempt at a rigorous test of climate-evolution cause and effect. It is gratifying to see that all the major hominin lineages, the major shifts in stone technology, the two major dispersals out of Africa, and the origin of *Homo sapiens*, all are correlated with prolonged high climate variability (Potts, 2012, pp. 151-167)." Matthew Grove from the University of Liverpool in the U.K. agrees with Potts that variability is responsible for human evolution, but with a caveat. He thinks early humans would have gained their adaptable skills where they were and only spread to new environments during calmer periods once wild climate events had died down (Grove, 2011).

Climate and fossil records suggest that events in human and pre-human history, such as the evolution of new species or dispersals from Africa to other continents over the past eight million years, coincided with substantial changes in the African and Eurasian climate. These events reveal the possibility that environmental factors affected or controlled *Homo sapien*s' evolution. All living things interact with the earth system, the combinations of land, atmosphere, and oceans, which make up the planet's environment. As the earth's system has changed, individual species have responded to these changes. In some cases, species have moved to new locations. In other cases, they have remained and adapted to the environmental changes, and sometimes this has led to the formation of new species, and some species have become extinct (Hamilton, 2010).

The hominin fossil record documents a history of critical evolutionary events that have ultimately shaped and defined what it means to be human, including the origins of bipedalism; the emergence of our genus *Homo*; the first use of stone tools; increases in brain size; and the emergence of *Homo sapiens*, tools, and culture. The geological record suggests that some of these evolutionary events matched substantial changes in African and Eurasian climates. These changes raise the possibility that critical junctures in human evolution and behavioral development may have been affected or controlled by the environmental characteristics of the areas where hominins evolved (Hamilton, 2010). People think we are such a successful species that nothing can happen to us, but most of our ancestors eventually went extinct. *Homo erectus*, the forerunner of modern humans, lived for one point five million years. *Homo sapiens*, by comparison, have been around for only 200,000 years. The question remains as to how human societies in the future will apply their evolved adaptability in adjusting to the rapid environmental changes we are now creating.

During human evolution, we interacted with our environment in ways that left an indelible mark on our character and capacity for adaptability, allowing us to respond to unexpected changes. This character feature allows us to adapt to our new environment. This adaptability is significant for new college students who are entering an environment that is foreign for most since they may be leaving home for the first time or even leaving their home country. Humans may not be aware we have this characteristic, but it sure does come in handy when we enter that remarkable chapter in our higher education lives. Future studies could center around how these evolutionary characteristics relate to who we are today and whether or not they influence us positively or negatively regarding the kind of humans we are becoming.

Effects of Landscape on the Human Psyche

Our connection to nature and how it affects us personally makes us human. Nature can remind us of good and bad times, but how we respond to either situation can determine our mental health status. Our most significant interaction with nature is with the landscape we encounter around our homes, community parks, and local reserves. For college students, it is the landscape of their chosen university campus. How humans respond to that landscape can be based on culture, religion, the size of the community they were raised in, what part of the state they are from, and their country of origin, among other reasons. Understanding how these human-nature interactions work may help explain why landscapes can be so crucial to the success or failure of college students. The failure is not always the student's fault; in many cases, it is the university's responsibility for not recognizing this relationship and not providing the nurturing environment students need.

The history of landscape design ranges from the earliest times to the present day, exploring the diverse ways humankind has shaped the landscape around them, from ancient Egyptian royal cemeteries to magnificent revival gardens to modern-day designs. They mirror how the landscape reflects social development and cultural values. Outdoor spaces mean different things for different people, though many recognize the calming effect nature can have. For thousands of years, people have transformed the meaning of space by reshaping nature. As an art form, architectural landscape creations are marked with social imprints unique to their environment and place in time.

Though it may seem like a modern invention, many cultures have practiced public and residential landscaping for hundreds of years. For each culture, landscaping symbolized something different and was made up of other elements. Around the world, from the Far East to

the Americas and through to Europe and Africa, beauty was not initially the prime reason for growing anything. The instinct and enthusiasm for gardening have resulted from some primal response to nature, bringing about a wish to produce growth and harmony in a creative partnership. This partnership included cultures attempting to re-create or express the sacred meanings and spiritual significance of natural sites and experiences in their built landscapes. People modified the landscape to try to understand or honor the mysteries of nature. Early landscape design expanded humankind's intuitive urge to dig and mound. The advancement of human cultures, and more control over the natural world, encouraged humans to manipulate their landscape for physical and spiritual comfort. "If you are not a gardener, it may seem strange to think that scrabbling about in the soil can be a source of existential meaning, but gardening gives rise to its own philosophy, and it gets worked out in the flower beds (Stuart-Smith, 2020).”

Human Survival and Safety

Since the earliest times, humans have needed to be thoughtful of their surroundings to survive, which means we have an innate awareness of our environment and seek out surroundings with certain qualities. Humans have a compelling need for safety, security, and survival and look for those attributes in their environment. For example, one researcher has linked a preference for certain tree forms to a high probability of finding food and water near equally shaped trees (Orians, 1986). In addition, we seek a psychologically relaxing environment, such as familiar environments that offer the right amount of stimulus (Kreitzer, 2013).

Since the beginning of our existence, humans have continuously interacted with nature. People often forget that we are beings of nature. We are animals that started existing as every other organism did in a natural ecosystem. Humans have only developed techniques that have

isolated us from our natural surroundings in the last several thousand years. The question is, have we lost our affection for nature? Not according to studies focusing on environmental psychology. They show that humans still have positive reactions to nature and natural environments, instinctive biophilia, and the urge to associate with other life forms (Wilson, 1984). One of the most famous studies in this field demonstrated that hospitalized people recovered more quickly with a view of trees than with a view of a brick wall (Chowdhury, 2014). Roger S. Ulrich, Ph.D., Director of the Center for Health Systems and Design at Texas A&M University (1983), puts forth a theory that the first level of response to natural scenes, including vegetation, is emotional. His psychoevolutionary perspective holds that this emotional response to nature is central to all subsequent thoughts, memory, meaning, and behavior related to human environments (Relf, 1992). “We live with our evolutionary past, or rather it lives through us (Stuart-Smith, 2020).”

Humans have innate landscape preferences because certain landscapes have features that immediately serve survival. From this perspective, Jay Appleton, a British geographer who proposed habitat theory and advanced prospect-refuge theory, compared an animal's relationship to its habitat, which better explains innate preferences. We like to see without being seen and prefer landscapes that allow us to hide and survey the environment. Accordingly, half-open landscapes would be preferred over open or closed landscapes. In addition to half-openness, an abundance of vegetation and water are considered landscape properties for which we have an innate preference (Ulrich, 1983). While natural landscapes often contain more vegetation than human-made landscapes, the vegetation, not the naturalness, triggers inborn mental dispositions to like those landscapes (Jacobs, 2011). If the landscape is designed correctly, it can exist in an urban setting and accomplish the same thing as walking in the woods.

Environmental Psychology

Environmental psychology is a leading discipline in studying human responses to the visual landscape, which contains three core assumptions. The first is how people perceive landscapes which are influenced but not determined by physical landscape attributes. The second is a complex mental process of information reception, and processing intercedes between the physical and psychological landscapes. The third are various factors that can influence this mental process, which can be divided into cultural, individual, and biological factors (Jacobs, 2011). Biological factor denotes innate personalities that are evolutionarily determined and fixed in our genetic makeup. Some landscape preferences are inborn responses to physical landscape properties that have emerged during biological evolution because these responses improve survival (Saegert & Winkel, 1990).

The overload and arousal theories suggest we are constantly flooded with so much noise, movement, and visual complexity that our surroundings can overwhelm our senses and lead to damaging psychological and physiological excitement levels. On the other hand, environments dominated by plants are less complex and have patterns that reduce arousal and, therefore, reduce our feelings of stress (Relf, 1992). Weeding a garden can be an effective way of entering into a flow state, allowing our minds to relax. Mihaly Csikszentmihalyi, a Hungarian American psychologist, stated that flow, also known as being in the zone, is the mental state in which a person performing some activity is fully immersed in a feeling of energized focus, full involvement, and enjoyment in the process of the activity (Csikszentmihalyi, 2013). The immersive quality of gardening helps pull us into the present moment. It can be a form of mindfulness with well-recognized anti-stress effects (Stuart-Smith, 2020).

Another theory maintains that people's responses to plants result from their early learning experiences or their cultures based on familiarity and nostalgia. For example, those who grew up in western Texas have a more positive attitude toward flat lands with sparse, natural vegetation and cultivated crops. Alternatively, why do Americans seem to prefer foundation plantings in their front yards even though the style of architecture has changed? These plants are no longer needed to hide ugly foundations, or why Americans desire broad lawn areas that urban water systems cannot easily maintain. A different theory asserts that our responses to plants result from evolution. Since we evolved in environments comprised primarily of plants, we have a psychological and physiological response to them. This evolutionary response is seen in an untaught tendency to pay attention and respond positively to specific combinations of plants and other natural elements (Ulrich, 1983).

Psychoevolutionary Theory

Psychoevolutionary Theory asserts that the positive reaction humans experience in nature is programmed evolutionarily. Nature was the first place humans learned to survive by gathering the resources around us, just as our evolutionary ancestors did. In a world so full of pre-packaged food and bottled water, it is easy to lose sight of the beauty we see in rivers and plants, and animal life stems from a place of survival. The food and water that exist all around us have always helped humanity survive, so it is natural to perceive these things as beautiful and enjoy being around them. Because of the demands of evolution, which primarily include survival and reproduction, humans have built-in positive reactions to natural environments (Chowdhury, 2014).

We like objects or situations that invoke positive emotions and dislike objects and situations that invoke negative emotions. The advantage of automatically responding with an

emotional reaction to some stimuli is that this response is quick. Since the environment is crucial for survival, we will have innate predispositions related to certain aspects of our environment within general evolution theory. Genes that predispose us to particular emotional reactions to certain landscape qualities have survived in evolution because those reactions have turned out to be adaptive responses to conditions of life importance for human beings. Thus, innate landscape preferences are choices for landscapes beneficial for our distant ancestors but not necessarily for us. Over the last couple of thousand years, since the advent of agriculture 10,000 years ago, humans have created artificial environments at a pace that is much faster than our genetic makeup can adapt (Jacobs, 2011).

Ecological Theory

Ecological theory suggests that contact with nature accelerates children's development of cognitive, emotional, and spiritual connections to social and biophysical environments around them. The ecological theory also suggests that contact with nature is essential for children's mental, emotional, and social health because imagination and creativity, cognitive and intellectual development, and social relationships are encouraged in outdoor activity, improving the child's mental health and function. Nature can provide both conditions and objects for play and learning. Among older children, exposure to nature encourages exploration and building activities, improving problem-solving abilities, responding to changing contexts, and participating in group decision-making. Younger children often use outdoor settings having plants, stones, and sticks as props for imaginative play, which is key to social and cognitive development (Wolf & Flora, 2010). Learning requires focused, directed attention and high-level cognitive functioning, like tasks at work. One study compared students walking in an arboretum to walking down a highway. Those who had spent time in nature performed significantly better

on subsequent tests. This response to nature is not surprising if we think about our hunter-gatherer heritage: our brain evolved in the context of the natural world (Stuart-Smith, 2020).

Can nature make humans smarter? The multifaceted and vulnerable brain is the only organ that undergoes substantial development after birth. This process is shaped by the response to stimuli in our surroundings, including unfavorable and favorable conditions, throughout our lives. Extensive research shows that natural scenes evoke positive emotions, facilitate cognitive functioning, and promote recovery from mental fatigue for people in good mental health. The experience of nature can also provide relief for those who experience short-term and chronic mental illness (Wolf & Flora, 2010).

Urbanization

The human species is urbanizing at a record rate. At least three billion people will migrate to cities in the next century. However, we are only beginning to understand how living in dense clusters of perfect strangers, surrounded by skyscrapers and concrete, affects the brain (Lehrer, 2010). We live rooted in the landscape and perceive it through our whole body, which affects our well-being. The landscape is considered a cultural product that refers to every kind of place and space. "Landscape is an important part of the quality of life for people everywhere: in urban areas and the countryside, in degraded areas as well as in areas of high quality, in areas recognized as being of outstanding beauty as well as everyday areas (Council of Europe, 2000, Preamble)." Landscape can be defined as something natural, as formed by authentic objects, something out there, but at the same time, it can be described as an appearance, a product of our way of seeing, describing, and portraying it.

A community with easily accessible green spaces in its design may also improve social cohesion and interaction. As a result, the mental health of individuals may also remain positive

due to a decreased chance of depression and feelings of isolation and increased self-esteem (Wolf & Flora, 2010). Green spaces, such as public gardens or the shade of an old oak tree, encouraged social contact by serving as informal meeting places and sites for group and shared activities. Green spaces can serve as a sort of ecotherapy, as people who may feel left out can find empowerment, relief from stresses, and personal involvement in environmental stewardship. Studies indicate that having views of nearby nature and living within green spaces can improve worker productivity, reduce stress, improve school performance, and lessen the symptoms of Attention Deficit Disorder (ADD). Useable and safely accessible gardens or green spaces foster a sense of community and provide psychological benefits among their members (Wolf & Flora, 2010).

Landscape valuations showing the collective opinion of their community needs or preferences are gaining broader acceptance. Landscape planning and design based on those community preferences are more likely to succeed. People assess the landscape, unlike when they assess a piece of art. The landscape's appearance should not be considered a decorative afterthought because people react differently to the landscape than to paintings or artworks. Landscape preference research shows that landscape preferences relate closely to human needs or affordances (Gibson, 1979). Through natural selection, people have evolved to prefer certain types of landscapes, which pointed to the survivability or well-being of the human species (Maulan et al., 2006).

Urban design can strongly influence our patterns of behavior and our stress levels. The obscurity of life in a high-rise and the isolation of automobile-centric suburban life can demand a heavy toll on urban residents. The constant stimuli of city life can be mentally exhausting, and life in the city can dull our thinking. A few minutes in a crowded city can cause the brain to

suffer memory loss and reduce self-control. Even brief glimpses of natural elements improve brain performance by providing a mental break from the complex demands of urban life (Wolf & Flora, 2010). The simple aesthetic of an urban environment, the look, and feel of a community, also produces a measurable effect on our mental health (Ellard, 2015).

In the past, public places with natural landscapes were squeezed into a setting wherever they were allowed and made to work. Urban landscapes are dramatically transformed by carefully planning parks and other green areas. Along with the overwhelmingly positive public response to such spaces, plenty of hard-nosed science suggests exposure to scenes of nature, even very modest ones, can dramatically impact public health. For example, it has been shown that long, unbroken, featureless facades cause pedestrians to become unhappy, bored, and perhaps even a little angry. Research has also shown that different forms of green spaces might have entirely different contexts and meanings; cemeteries, community gardens, and traditional parks, but all can produce a profound health-giving restorative response (Ellard, 2015).

Landscape Aesthetics Approach

Humans have always relied on their visual senses to understand the world; the landscape has been a source of particular interest. This phenomenon has caused scholars to question what makes a particular landscape beautiful and why. One group believes that the aesthetic qualities of a landscape are inherent in the landscape; the others argue that landscape aesthetics lies in people's perception or mental understanding of the landscape. The objective approach is established and has been an accepted theory for a long time and is rooted in Classical Greek philosophy. The objective approach refers to how people measure the aesthetic quality of the object by using objective, observable means. Plato and Aristotle are among the first philosophers to argue that aesthetic qualities could be observed objectively and lie in the object's intrinsic

properties (Lothian, 1999). Based on this argument, landscape aesthetics is judged by its formal quality, such as line, color, and form. Many followers of the objective approach are people with a design background, such as artists, landscape architects, structural architects, and to a certain extent, physical geographers. They believe one must be trained to make aesthetic judgments (Lothian, 1999).

The objective landscape approach found a new direction in 1933 when Aldo Leopold, then the Director-General of the U.S. Forest Service, advocated the concept of ecological aesthetics. Leopold argued that landscape aesthetics is derived from the naturalness and ecological integrity of the landscape. As a result, ecological diversity, integrity, and intactness of the landscape are essential factors in determining landscape aesthetic quality. Therefore, natural and untouched landscapes are presumed to have higher aesthetic values. Since the basic principle of this approach is that landscape aesthetics rests in a landscape's ecological health and vigor, proponents of this approach are often organic scientists such as biologists, ecologists, and foresters. Since the ecological aesthetics approach is concerned with the natural integrity of the landscape, the advocates of this approach are often concerned with protecting and preserving the natural environment (Maulan et al., 2006).

Proponents of the subjective or existential approach claim that the sense of landscape aesthetics is derived from the viewer's interaction with the landscape object (Preble & Preble, 1994). The cognitive and affective reactions are evoked by various landscapes in which the scenery is regarded as a stimulus that can trigger people's feelings and emotions (Kaplan & Kaplan, 1989). Landscape aesthetics is also regarded as a human concept either at the social or individual levels in the subjective paradigm. The aesthetic quality of the landscape comes from the human mind's perception and interpretation of the landscape. This approach argues that the

human preference for different landscapes or perception of aesthetic qualities of the landscape is based on human knowledge and understanding of the landscape. Some of this knowledge and understanding may be innate, something people are born with, and some may be learned or acquired through experience and education. Knowledge and understanding come from culture, education, and experience (Kaplan & Kaplan, 1989).

Philosophers such as David Hume and Edmund Burke expanded these ideas by arguing that beauty extends an observer's subjective response to an object (Lothian, 1999). In his book *Critique of Judgment*, Immanuel Kant argued that aesthetics is in the mind of people, whereas beauty is in the eye of the beholder (Kant, 1790). In his series of studies in the late 1970s and early 1980s, Ulrich looked at the relationship between human affective responses and landscape nature. He found the relationship significant. He found that when people are exposed to greenery, their affective responses, blood pressure, palm sweat, and others are significantly lower than those shown in urban environments. Ulrich's studies show that nature is vital for human well-being (Ulrich, 1979).

People give meaning to particular locations during life and become attached to places (Tuan, 1980). We have mental concepts for different categories; for a tree, it could be beauty; for that specific tree in someone's backyard, it could be the place they were raised, and then mental concepts related to specific events, like their tenth birthday. Mental concepts are mutually connected. Somebody's mental concept for a specific place might connect with mental concepts representing personal memories of that place. Sense of place, understood as the total collection of meanings people assign to a particular place, is an overarching concept that includes all meanings an individual assigns to a place (Relf, 1992). Some scholars consider a sense of place a

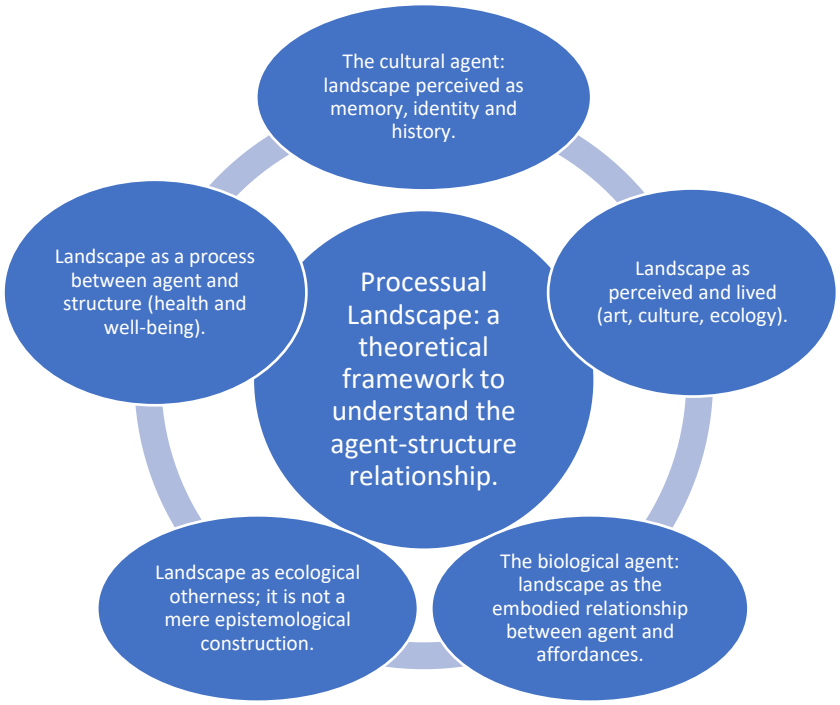
holistic concept and are reluctant to distinguish between its components or dimensions (Tuan, 1980).

People–Plant Relationships

Sociologists, anthropologists, artists, historians, and other professionals explore the people-plant relationship to understand humanity better (Relf, 1992). The focus on studying landscape has been on landscape structure, not human behavior. A more functional perspective quickly demonstrates that humans construct and manage landscapes and look at them, making decisions based on what they see, know, and feel (Gobster et al., 2007). The perception of the landscape thus assumes a pivotal role. Concerning the perception of landscape, Denis Dutton, American philosopher of art, web entrepreneur, and media activist, specifies that "people in very different cultures around the world gravitate toward the same general type of representation, a landscape with trees and open areas, water, figures, and animals. More remarkable still was that people across the globe preferred landscapes of a fairly uniform type (Dutton, 2009, p. 14)."

The concept of processual landscape is the theoretical demonstration of the health-landscape relationship. The processual landscape is the idea of landscape as a process and the perceiver of landscape as a cultural agent. The processual theory considers landscape to be a social product. The perceiver plays a vital role in determining landscape through their collective history, personal stories, and, in short, cultural background. The landscape is not just a wonderful place but also includes everyday environments. The perceiver of a landscape is an organic agent and a body that moves in the landscape and is in motion during its experience. According to this new theory, landscape perception is neither an exchange of information nor a simple stimulus-response connection. Perception can be understood as a relationship between the perceiver and the affordances, which are the possibilities the environment offers to the organism, rather than as

a negotiated explanation of stimuli. Affordance allows perception, motion, life, and survival; therefore, it is adaptive. Environment, culture, and perception cannot be separated (Gibson, 1979).



All human beings involved in the perception of landscape and its mutual creation can be considered agents involving experience and interaction (Hamlyn, 1978). We become agents when we perceive a landscape. We reformulate the idea of a landscape by naturalizing it through affordance and ecological psychology. Perception is not merely visual but instead involves our cultural and biological backgrounds. At the same time, humans build their landscapes in their minds. Perception is the key to explaining the informal relationship between us and our landscape (Gibson, 1979).

Plants are a fundamental part of our rituals from birth to death. Despite the frequency of plants in celebrating and grieving, little is understood about their significance in these roles. Researchers have begun to explore how plants are valued and interpreted when used as a

celebration or ritual element. The discovery of clusters of different kinds of pollen in the grave of a Neanderthal at Shanidar Cave, Iraq, indicates that flowers have been part of the funeral process since the earliest man (Solecki, 1975). In a study by Diane Relf (1992), she reported that 82% of the respondents associated a gardening element with Christmas. Subjects rated the description of Christmas scenes, including plant elements, as more meaningful and enjoyable than those without such elements.

Relf (1990) looked at the symbolism of flowers in paintings to understand the role of flowers in stirring moral awareness. Plant representations include ethical and religious messages, flowers symbolic of marriage, concern over death and transience, greed, and speculation. Carl Jung, a Swiss psychiatrist and psychotherapist who founded analytical psychology and concerned himself with the unconscious mind outside the conscious ego's awareness and control discusses the archetypes' application to nature. Archetypes are basic, instinctive behavior patterns, emotions, and imagery familiar to all humans. To identify and understand the spiritual meaning of nature, one might turn to mythology, literature, religious traditions, and art of various cultures to seek out archetypical responses. Through such studies, one identifies a rich tradition associated with trees, such as the World Tree, Tree of Life, sacred groves, and symbolisms associated with the garden as an origin of humanity (Schroeder, 1991). We even use the tree to symbolize how human ancestors branched off from one another.

Topophilia, from the ancient Greek *topos,* place and *philia,* love or attachment, means that human feelings, values, and attitudes toward the world are geographically embedded, implying that experiencing places plays a fundamental role in our development. Yi-Fu Tuan (1980), a Chinese-American geographer, was one of the first geographers to understand place as a product of perceptive and cultural elements. Place and perceiver are linked by values, ethical

commitments, and feelings. His idea of topophilia has also been studied in connection with well-being, meaning that individual preferences for specific places and restorative environments are significantly associated with quality of life (Ruan & Hogben, 2007).

All aspects of human culture are abundant with references and meanings regarding plants since they have played a vital role in the maturity of our civilization. Knowing more about human interaction with plants, from food to folklore, may help us better understand ourselves and our roles in the grand scheme. An industry whose sole survival depends on purchasing plants should understand the meanings plants may hold and the kinds of needs they satisfy in the people who purchase them (Relf, 1992). If the garden plays a vital role in long-term things, then horticulturists, as keepers of the garden, need to begin to understand the meaning of the garden to people. With sufficient information, horticulturists may alter culturally based or learned responses to plants by strongly reinforcing more environmentally sustainable and humanly healthful landscapes.

The production, installation, and management of appropriate landscapes will continue to be significant horticulture goals, but the actual plant content and configuration involved may be altered by further studies (Relf, 1992). Increased research in this area, together with communications to make the public aware of the findings, would increase the enjoyment and use of plants significantly and would increase the demand for horticultural products and services, increase the number of jobs in the industry and, ultimately, increase the demand and funding for traditional horticultural research and education.

Human Attention

Attention Restoration Theory (ART) states that a natural environment offers a setting where people can restore their directed attention. Directed attention is the conscious attention

humans need for cognitive tasks, and this cognitive focus can become fatigued after prolonged mental activity. Most people live a hectic lifestyle in a human-made environment filled with social and professional demands. Nature offers an entirely different setting, which gently distracts people from the stresses of civilized life. This setting is when undirected attention, or the subconscious, can take over and means that nature recharges our mental batteries. Being in nature has a more substantial effect, which makes sense. Immersion will always produce stronger sensory responses than simply looking at a picture. However, the benefits of contact with nature are not just psychological (Chowdhury, 2014). Being in nature alters the human brain in a way that makes us feel better (Wolf & Flora, 2010). It is no accident that there was a run on seeds at the beginning of the pandemic. Gardening grounds us and gives us something to look forward to, and in times of crisis, these simple qualities can offer a psychological lifeline (Stuart-Smith, 2020). Gardeners are the ultimate optimists. There is good news for those who cannot or do not want to experience hallucinogens; we can achieve that feeling in nature just by sitting, clearing our minds, and genuinely experiencing everything around us. Experiencing nature is a form of meditation that pairs perfectly with the calming effects of being in nature. Furthermore, remember that meditation's effects are natural because our brain and body are parts of nature.

William James (1892), an American philosopher and one of the early giants of modern psychology, explained that human attention comes in two different forms. The first is directed attention, which enables us to focus on demanding tasks like driving and writing. The second form is involuntary attention, which comes easily and does not require mental effort. As James explained, "strange things, moving things, wild animals, bright things, pretty things, words, blows, blood, all attract our attention involuntarily." The business of everyday life, dodging traffic, making decisions, making judgment calls, and interacting with strangers, is draining, and

what artificial environments take away from us, nature gives back (Alter, 2013). Nature restores mental functioning in the same way that food and water restore our bodies.

According to Attention Restoration Theory, urban environments are draining because they force us to direct our attention to specific tasks, e.g., avoiding the assault of traffic and grabbing our attention, forcing us to look here before telling us to look over there instead. These demands are exhausting, and they are also absent in natural environments. Forests, streams, rivers, lakes, and oceans demand very little from us, though they are still engaging, ever-changing, and attention-grabbing. The difference between natural and urban landscapes is how they command our attention. While artificial landscapes bombard us with stimulation, their natural counterparts give us a chance to think as much or as little as we would like and the opportunity to replenish exhausted mental resources (Alter, 2013).

Exciting locations, including busy natural environments, are so beneficial that physicians have begun to suggest that they might offer a cheap and effective way to lessen the effects of certain cancers. One team of researchers showed that women recently diagnosed with early-stage breast cancer were far more capable of completing challenging mental tasks when they immersed themselves in natural environments for two hours each week for approximately two months. Attention is obviously a long way from recovery, but patients with sharper minds often respond better to treatment, stick to their treatment regimens, and behave more proactively during recovery. Of course, nature is not a panacea, but it is an inexpensive and effective tool for reducing the impact of illness and dulling the intrusion of everyday stress (Alter, 2013).

James (1892) distinguishes between directed, effortless, and restored attention. When our directed attention needs to rest, "it is necessary to find some other basis for maintaining one's focus. What is needed is an alternative mode of attending that would render the use of directed

attention temporarily unnecessary (Kaplan, 1995, p. 172)." The solution lies in what James called fascination. Rachel and Steve Kaplan, professors of psychology at the University Michigan, describe it as "attention that requires no attention at all, such as when something exciting or interesting happens, and we look to discover what is going on (Kaplan & Kaplan, 1989, pp. 179 & 184)." Accordingly, natural environments fulfill some of these features by reducing stress by eliminating directed attention fatigue and helping prevent it (Kaplan & Kaplan, 1989).

Human Stress

Healers in Japan and Germany have long proclaimed the benefits of natural therapy, recognizing that humankind has spent 99.99% of its history living in natural environments (Alter, 2013). People exposed to natural scenes are not just happier or more comfortable; their physiological well-being building blocks also respond positively to natural therapy. Natural environments promote calmness and well-being because they expose people to low-stress levels. Everyday stressful experiences are tame compared to the trials and tribulations that most associate with stress, workplace drama, traffic jams, and wailing children on plane trips. Humans thrive with some stimulation, but we cannot cope with extreme stressors, which push us from the comfortable realm of eustress, good stress, to the danger zone of distress, bad stress (Alter, 2013). There is growing evidence that different reactions to natural and urban views apply beyond an aesthetic preference to include other influences and appear to be expressed in neurophysiological activity and apparent behavior. The nature restoration hypothesis is the theory that natural views tend to be therapeutic compared to urban scenes in terms of reducing stress or anxiety (Ulrich, 1979). The idea that stressed urban dwellers benefit emotionally from contact with nature has usually been used to support city parks and urban forestry projects (Ulrich & Simons, 1986).

According to proponents of environmental psychology, humans spending time in nature rather than human-made environments has three positive effects: reduced stress, improved mood, and improved cognitive performance. Arguments in favor of plants usually make little impression on financially pressed local or state governments or developers concerned with the bottom line. Politicians with crucial problems such as homelessness or drugs may dismiss plants as unjustified luxuries. The lack of research on plant benefits has also tended to reduce spending on plants in other necessary settings, such as workplaces, healthcare facilities, and outdoor areas of apartment complexes (Relf, 1992).

Perhaps most importantly for health, the environment can create or reduce stress, impacting our bodies in multiple ways. As neuroscientist Candice Pert puts it, "What you are thinking at any moment is changing your biochemistry." Stress is an essential medical consideration, and creating an environment that reduces stress is crucial for improving health outcomes. Many studies prove that even three to five minutes of contact with nature can significantly reduce stress and have a complex impact on emotions, reducing anger and fear and increasing pleasant feelings (Kreitzer, 2013).

In addition to physiological symptoms, stress can lead to depression, schizophrenia, anxiety, exhaustion, and fatigue syndromes. Stress can occur at any time in life; however, such responses are especially evident later due to physical, psychological, and social changes, such as chronic disease, disability, death of loved ones, or financial hardship. Stress can also negatively affect people's well-being, including a poor perception of their mental health. More than one hundred studies have shown that relaxation and stress reduction are significant benefits of spending time in green areas (Wolf & Flora, 2010). This theory proposes a psycho-evolutionary outline to explain the role of landscape in reducing stress, based on the following elements: first,

response to natural setting is unconscious and related to adaptive responses to nature; second, nature contact, even a simple view, can rapidly evoke positive stress reduction effects; and third, the origin of the response relies on the survival of the human species. This preference is directly related to the link between evolution and aesthetic response. Nature probably helped early humans recover from acute stress and prepare them for the next survival task.

Eco-psychology and Human Health

Eco-psychology studies the relationship between human beings and the natural world through ecological and psychological principles expanding the emotional connection between humans and the natural world. A central premise of eco-psychology is that while today the human brain is affected and shaped by the modern social world, its deep structure is inevitably adapted to and informed by the natural environment in which it evolved. According to the biophilia hypothesis of Edward O. Wilson, American biologist, naturalist, and writer, human beings have an innate instinct to connect emotionally with nature, particularly the aspects of nature that recall what evolutionary psychologists have termed the environment of evolutionary adaptiveness, the natural conditions the human species evolved to inhabit (Wilson, 1984).

Over two million children in the U.S. have been diagnosed with ADD, which has detrimental effects on social, cognitive, and psychological growth. Studies show that childhood ADD symptoms can be reduced through activities in green settings and that green time may be an essential supplement to established drug-based and behavioral treatments. In one study, the greenness of a child's home did not significantly affect ADD symptom severity, but the greenness of the play setting was related to reducing symptom seriousness. Children who played in windowless indoor settings had significantly more severe symptoms than those who played in grassy outdoor spaces with or without trees (Wolf & Flora, 2010).

Horticulture has a long history of treating individuals with various diagnoses. It has been used effectively in psychiatric hospitals since the late 1800s (Relf, 1990). According to the American Horticultural Therapy Association, rehabilitation hospitals, facilities for the developmentally disabled, and geriatric centers have significantly expanded the use of horticulture in their treatment programs over the last twenty years. The program's goals differ, but the basic premise behind horticultural therapy is working with and around plants bringing about positive psychological and physical changes that improve the quality of life for the individual (Taylor, 1990). The research mentions the physical value of gardening, reporting that we can burn as many calories in forty-five minutes of gardening as in thirty minutes of aerobics. One hour of weeding burns three hundred calories, the same as walking or bicycling at a moderate pace, and manual push-mowing of the lawn burns five hundred calories per hour, the same rate as playing tennis (Relf, 1992).

Other Therapeutic Values

Office workers with no outside view were likelier to decorate their workspaces with nature scenes than workers with windows (Heerwagen & Orians, 1986). Office workers report that plants make for more attractive, pleasant, and healthy work environments, but what impact do plants and nature views have on work performance? Studies show improved employee morale, decreased absenteeism, and increased worker efficiency result from such workplace enhancements. Another study reports that workers with a view of natural elements, such as trees and flowers, experienced less job stress, were more satisfied with their jobs and reported fewer illnesses and headaches than those who either had no outside view or could only see constructed elements from their windows (Kaplan et al., 1988). Positive responses may express the connections between attention fatigue and nature-aided cognitive recovery (Wolf & Flora, 2010).

Steve Kaplan (1992) attributes the therapeutic value of participation with nature, particularly wilderness experiences, to the ability to fulfill several criteria: being away, that is, providing a setting so different from the stressful setting that there is a feeling of escape and an increased likelihood of thinking about other things, and extent, which implies that the setting is large enough in scope to experience without exceeding its boundaries and that the various parts of the setting are connected or belong to the whole. Extent is not defined by physical size but rather by conceptual size; thus, a miniature garden, a terrarium, or a vegetable plot may provide for one person what acres of wilderness provide for another. The size of the conception of a place could be affected by individual factors (Sauerwein, 2017). Fascination elicits involuntary attention, which means we do not have to pay attention consciously to what we are doing, as is often required by stress-inducing jobs to avoid distraction or daydreaming. Fascination allows us to recover from the effects of the directed attention given to more stressful work. Compatibility is established by an environment conducive to meeting our personal goals, allowing us to do what we want to do, are inclined to attempt, and are needed and feasible (Relf, 1992).

Recent research has found what nature lovers have long proclaimed: spending time in green spaces, such as parks, benefits one's mental and physical health (Hance, 2011). People who live in more natural settings have better overall health, even when research has considered economic differences (Hance, 2011). According to Sebastiano Santostefano, a psychoanalyst renowned for his work with traumatized children, "most persons believe nature provides children and adults with pleasurable stimulation, promotes a sense of well-being, and fosters positive, psychological development (Santostefano, 2008, pp. 513-535)." According to Charlene Browne, Director of Administration at The Elementary Institute of Science, nature's spiritual and psychological benefits are essential for humans. "Landscaped grounds and the inclusion of

natural elements may play a role in promoting psychological, social, and physical well-being among residents (Browne, 1999, p. 78)." Hence, one of the significant benefits of nature is its positive effects on the human psyche and sense of self to help him/her reach a better recognition of him/herself (Kaplan, 1992).

According to Frederick Olmsted, an American landscape architect, nature "employs the mind without fatigue and yet exercises it; tranquilizes it and yet enlivens it; and thus, through the influence of the mind over the body, gives the effect of refreshing rest and reinvigoration to the whole system (Ulrich & Parson, 1992, p. 95)." Nature can bring tranquility and rest to the mind to think about our place and self in this world (Kaplan, 1992). In addition, according to Harold Searles, one of the pioneers of psychiatric medicine specializing in psychoanalytic treatments of schizophrenia, the natural environment is "one of the most basic important ingredients of human psychological existence (Saari, 2002, p. 7)."

The human-nature relationship is a powerful way to cope with the many stress-inducing events in our lives. When students first set foot on a college campus, they bring a whole set of cultural, social, and family-related issues, which can lead to emotional, mental, and physical concerns. One way college students can help reduce these stress-related concerns is to connect with the campus landscape. This connection can help reduce stress by providing a relaxing environment, which may also help with other mental health and well-being issues. Human's first reaction to landscapes is an emotional response related to our need for safety and survival, a biological reaction developed during our evolutionary period. This response to landscape plant combinations is psychological and physiological, which may explain our fondness for differing tree and plant types. These emotional responses are why providing a well-thought-out managed landscape on a college campus is important.

Increased research in plant benefits for workplaces, healthcare facilities, outdoor areas of apartment complexes, and higher education campuses, together with communications to make the public aware of the findings, could increase the appreciation and use of plants significantly and could increase the demand for horticultural products and services, increase the number of jobs in the industry and, ultimately, increase the demand and funding for traditional horticultural research and education. In the case of research on both natural and urban landscapes, very little work has compared preferences for different tree species and studies of liking responses to smaller types of vegetation, such as shrubs and herbaceous flowering plants. With sufficient information, horticulturists may alter culturally based or learned responses to vegetation by strongly re-enforcing more environmentally sustainable and humanly healthful landscapes.

Nature and the Spiritual & Social Human Being

Humans are social animals; as such, we need to be around others with whom we can connect, exchange ideas, and generally commune. The campus's outdoor built environment is such a place. It can play a significant role in developing a solid bond between not only the students themselves but between the students and their chosen university. The prospects for both formal and informal meeting places around campus can provide opportunities for such gatherings, fulfilling the student's need for socializing in a safe environment. Nothing makes a person feel more welcome and cozier than feeling safe and secure. Landscapes can also provide an opportunity for more than communing with others; students can bond spiritually. It is not about finding peace in God or finding religion; it is about this more immediate connection to nature and how that spurred our spiritual imaginations. This spirituality does not necessarily have to be a religious experience, it can be, but in most cases, it is more about a personal transcendental experience in which the landscape can help facilitate. These experiences are

intended to help students feel more at home, develop personal relationships and deal with stress related to college life.

Throughout history, human beings have both affected and been affected by the natural world and have always been completely dependent on nature for all their needs. Everything humans have needed to survive, and thrive, has been provided by the natural world around us: food, water, medicine, materials for shelter, and even natural cycles such as climate and nutrients (Hance, 2011). However, as industry has spread its influence on human life, humans have gradually alienated from nature (Kaplan, 1992). The human-nature relationships and human alienation from nature make people aware of the importance and benefits of our close connection with nature. As we know it, Earth is an incredibly complex and fragile network of interconnected systems that have developed slowly over the last four and a half billion years (Robinett, 2014). However, we have so disconnected ourselves from the natural world that it is easy, and often convenient, to forget how much we depend on nature for survival.

Human beings have been completely dependent on nature throughout our lives on Earth. People have an underlying physical, emotional, and intellectual dependence on nature (Kellert, 1997). Contemporary science considers the human being based on two aspects of our existence: biological and social. Social behavior is behavior among two or more organisms within the same species and includes any behavior in which one member affects the other. Experiences with the natural environment shape our identities, telling us who we are as individuals and how we relate to other aspects of the natural world. These experiences affect our actions and our perceived moral obligations toward nature. Are we a steward of nature? A child of Mother Earth? Or, on the other hand, simply a consumer of natural resources (Clayton & Brook, 2005)?

The ability of humans to control the landscape and recognize the consequences of doing

so puts us in a peculiar position. As a species, we are obliged to provide and proliferate to achieve stability for our families and ourselves. However, we also must maintain the environment, as we depend on its resources and services. The question we must ask ourselves is what role we play in nature. Do we have the right to influence the land, industrialize farm animals, and pollute waterways, or do we have an obligation to reduce our numbers and merely subsist? To answer these questions, we must rely on our knowledge of Earth, evolution, and our influence on the environment (Robinett, 2014).

Our relationship with nature has traditionally been one of inequity and overuse. Unfortunately, nearly every step in human history has been accompanied by a leap in environmental degradation (Robinett, 2014). At first, humans were incredibly in-tune with their surroundings. Everything has followed a natural course of evolution in three and a half billion years of life on Earth. However, our rapid success as a species has begun to affect this natural order. With our population at eight billion and climbing, we have played a tremendous role in disrupting the Earth's natural systems. As we continue to grow and have a greater impact on the Earth's systems, we must focus on our role and relationship with nature (Robinett, 2014). Despite this information, it would be wrong and unwise to conclude that people do not care about nature. Indeed, surveys show people place a very high value on nature and often accord it moral and spiritual significance (Kempton et al., 1995).

As society evolved, populations grew, and increased resources were required to feed the expansion. With innovations in agriculture, settlements became more permanent, and cities began to take shape. This change to city life accidentally led to a distancing from nature. While many people were still in-tune with nature on a subsistent level, the need for more and more resources began to change our regard for nature (Robinett, 2014). While nature has been the

source of human physical and spiritual needs for millions of years, the gap between humanity and the natural environment has steadily widened over the millennia. However, there is growing concern that this rift has become too great and we have strayed too far for our good (Kaplan, 1992).

After the industrial revolution, everything surrounding human beings was human-made, such as buildings, railways, roads, cars, and much more: pulling humans further away from nature. Technological and industrial advances such as television, telephone, computers, and the internet have made humans so busy with conveniences that our relationship with nature has been forgotten. Humans have become dependent on the manufacturing industry in industrialized cities rather than pure nature; hence, we have been gradually alienated from nature (Kaplan, 1992). As Roderick Nash, Professor Emeritus of History and Environmental Studies at the University of California Santa Barbara, states, "Civilization severed the web of life as humans distanced themselves from the rest of nature. Behind fenced pastures, village walls, and later gated condominiums, it was hard to imagine other living things as brothers or nature as sacred (Nash, 2001, pp. 229-237)."

Humans owe their modern regard for nature to the age of industry. With technological advancements, nature became something we were no longer a part of and entirely subject to but could control and profit from its resources. Industry evolution enabled humans to dominate the landscape and disrupt the natural systems in place for billions of years (Robinett, 2014). The rise of technology and industry may have separated us apparently from nature, but it has not changed our reliance on the natural world. Most of what we use and consume daily remains the product of various interactions within nature, and many of those connections are jeopardized (Hance, 2011).

Humans have been on the planet for a comparatively short time, only evolving from pre-

humans a few million years ago. People have always lived as part of nature, like the hunter-gathers. Hunter-gatherer societies are cultures where humans obtain food by hunting, fishing, scavenging, and gathering wild plants and other edibles (Groeneveld, 2016). Prehistoric hunter-gatherers often lived in groups of a few dozen people, consisting of several family units. They developed tools to help them survive and depended on the area's abundance of food. If an area were not plentiful enough, this would require them to move to greener forests; pastures were not around yet (Groeneveld, 2016). Our ancestors could not eat more than they found nearby and showed very different adaptations to their environment than groups at later times, closer to the transition to agriculture. Early humans relied upon their knowledge of crops and seasons to survive. They could only grow crops if the right nutrients were in the local soil or were located in suitable climates. The bond between early humans and their environment was extremely intricate. Animals only react to their surroundings and live within strict boundaries, but humans start to understand it and then use it to make it more agreeable. Humans produce, but animals collect or use what is available ("Humans and Nature," 2019).

Another huge benchmark in human development was the use of language, the origin of which is much discussed and very hard to place on a timeline. From some communication to primitive language-like systems somewhere among the earlier forms of humans to a full-fledged language the way we use it today, it all developed in these hunter-gatherer societies. Besides the organization of life within a group, discussing hunting strategies in detail, pinpointing the location of a nearby predator, or giving an expressive description of a newly found nearby blueberry bush made a difference (Groeneveld, 2016). Humans use the skill, tools, and materials developed by previous generations of beings, conveyed through language, learning, and culture ("Humans and Nature," 2019).

Eventually, as brain size increased and more humans adapted to different environments, advances were made in human technology. Humans began to work with and occasionally against their environment to create a steady way to acquire food and a more secure lifestyle. On the other hand, the environment, particularly the climate, definitely dictated early human movement and survival methods. While hunting did cause a strain on some ecosystems, all gathering and hunting groups seem to have tried to control their populations so as not to strain the resources of their ecosystem (Ponting, 1991).

This prehistoric lifestyle, with groups sharing and organizing a living space, and working towards keeping everyone alive, clearly had some social side to it. Research suggests a kind of social network structure could have appeared quite early on in human history, with connections stretching to family members and non-family. This social aspect may have helped spark increasingly intensive cooperation (Groeneveld, 2016). If this was the case, they might have shared or exchanged food with other groups in their region, maybe even at established meeting places.

Humans inhabited a specific ecological role, which encouraged them to develop survival techniques. As humans spread across the continents, some environments accelerated this process. For example, areas with climates having short growing seasons for food forced early humans to develop methods of preserving and storing food. The need to show the best time to plant crops forced early humans to study the seasons, weather, and soil types. Necessity, as they say, is the mother of invention, but in this case, it is the creator of science ("Humans and Nature," 2019). Humans have foresight and imagination, which can anticipate and plan for the consequences of actions and processes. These, combined with language to communicate and using tools for labor, differentiate us from animals ("Humans and Nature," 2019). With improvements in technology

and agriculture, humans began to find more effective ways of sustaining themselves. These improvements allowed for more permanent settlements, which led to rapid population growth and a distancing from nature (Robinett, 2014).

The activity of humans has always involved shaping the natural forces found around them. They altered the environment, for example, by cutting clearings in forests to grow crops, domesticating wild animals for food, and building shelters. Humans learned that if a forest was cleared of undergrowth, it was easier to hunt for animals in the forest. Humans used fire for various purposes, such as agriculture and hunting. When undergrowth in a forest was burned away, certain plants were more likely to grow back than others, so humans could cause things such as edible bracken to grow in abundance, providing additional food. Areas of the world are often regarded as wild, but humans have had a major impact on what we now consider wild by our actions long ago ("Humans and Nature," 2019).

Humans, like all life, both alter their environment and are altered by it. Labor, the ability to use tools, think abstractly, and imagine more wide-scale changes and plans, paved the way for humans to have a much greater impact on the environment than other forms of animal life. In particular, the development of culture, knowledge, technology, tradition, and ideas that are socially held and passed from generation to generation has meant a speeding up of the development of human society, compared with the slower pace of change in biological evolution ("Humans and Nature," 2019).

Some of nature's benefits are measurable, but most of what nature gives us are beyond measure. Economic measurements are useful, but as with most of what happens globally, economics cannot capture true worth. Science is also a useful measurement of the importance of nature, but once again cannot measure what nature means, practically and aesthetically, to each

individual (Hance, 2011). Beyond such physical goods, the natural world provides less obvious but just as important gifts in beauty, art, and spirituality (Hance, 2011). There is no question that the natural world has provided global arts with some of its greatest subjects. What we lose in nature, we also lose in art. Imagine poetry without flowers, painting without landscapes, or film without scenery (Hance, 2011).

Perhaps the most difficult gift of nature to quantify is its deep-seated connection to human spirituality. In most religions, the natural world is rightly revered (Hance, 2011). Mythologies of different cultures are, without exceptions, strongly connected with nature, and nature is everything in all mythologies. Most gods and goddesses are from nature or the owner of natural power. Different religions are closely connected to nature as humans have found and felt our creator more directly and easier when they look for them in nature (Williams, 2005). Even the holy books of the Quran and the Bible recommend that humans look to nature to be close to the great God. In the early Church, nature was conceived primarily as a symbolic system through which God speaks to men. David McCullough, an American author, narrator, historian, and lecturer states, that in nature, "you get a spiritual well-being that you can get no other way (McCullough, 1992)." One need not be religious to understand the importance of nature to the human spirit. One only needs to spend time alone in a forest, sit on a beach, touch a living frog, or watch the quarter moon swing behind mountain silhouettes (Hance, 2011).

Environmental interactions are interactions between the human social system and the rest of the ecosystem. Human social systems and ecosystems are complex adaptive systems because they have many parts and connections. Adaptive response structures promote survival in a constantly changing environment (Lill, 2006). In order to analyze human-environmental interactions, it is important to be aware of specific characteristics of the human social system.

The type of society strongly influences people's attitude towards nature, their behavior, and their impact on ecosystems. Important characteristics of human social systems are population size, social organization, values, technology, wealth, education, knowledge, and many more. Especially values and knowledge strongly influence people's view of life and consequently define how people act. The choice of possible actions is then limited only by the available technology (Lill, 2006).

In the natural world, organisms, plants, or any form of life will expand to use all resources, plus a bit extra beyond that (MacLeod, 2018). Because of this, interactions between human society and the environment are constantly changing. While highly valued by most, the environment is used and altered by a wide variety of people with many different interests and values, causing concerns about how best to protect our environment and natural resources. There will always be compromises and, many times, surprising or unintended consequences. However, a well-managed ecosystem can provide goods and services essential for our well-being and continued economic prosperity. All life relies upon what can seem to be the smallest and most insignificant leaves, mosses, or bacteria. Therefore, intervention at one level has implications for the entire chain. Humans could increasingly transform the planet from when they first started to walk on it and are busily doing that today. They can also foresee the consequences of much of their activities and decide to avoid what could be destructive or threatening ("Humans and Nature," 2019). So, why don't we?

Humanity's labor has created society and culture, but the relationship of humans to nature and the connection between the natural world and human society is an area of great controversy ("Humans and Nature," 2019). According to Lynn White, an American historian, "Man's relation to the soil was profoundly changed. Formerly man had been part of nature; now he was the

exploiter of nature (White, 1996, pp. 3-14)." Humans do not simply replace natural landscapes with human ones. Instead, people modify and rearrange components of landscapes to create an environment that is both human-made and natural (Wharton, 2014). The problem with this is actions of humans are not static. We react to changes in our environment and atmosphere. These actions change the landscape and climate, affecting our behaviors (Wharton, 2014). "People have been modifying their environments for tens of thousands of years," stated Jon Erlandson, a University of Oregon archeologist. "Humans have literally impacted everything from mammoths to microbes. Most people have no idea how heavily we have altered things and for how long (Clark, 2016, p. 3)." Erlandson said people have been like us for more than 200,000 years in cultivating new technology to make our lives easier and better, and, in turn, we have altered the environment (Clark, 2016). Over the past few centuries, human intervention has rapidly increased the pace of natural extinction, with unknown and potentially damaging effects on ecosystems ("Humans and Nature," 2019). Modern humans should not be so arrogant to assume that only technologies have done all the damage since the Industrial Revolution, even with the impacts of human-produced carbon dioxide (Clark, 2016). It is highly questionable whether any natural areas of the planet are unaffected by human activity ("Humans and Nature," 2019). Plants can survive without humans, but humans cannot survive without plants.

How humans respond to their environment and other humans depends on changes in different cultures and circumstances ("Humans and Nature," 2019). Michael Barton, then Assistant Professor of Sociology at LSU, wanted to understand how people, as a society, affect the environment and how the environment affects society. "I was looking out thinking, you know, these were all the same things that were here before, we just shifted them around, encouraged some, and moved others to other places," Barton recalls (Wharton, 2014, p. 2).

Farming is a prime example of this coupled nature-human relationship (Wharton, 2014). The geography of much of North America is now believed to have been created by the actions of native American plain-dwellers before colonization, who used fire to encourage grassland species to grow ("Humans and Nature," 2019). A 1995 U.N. report predicts that half of all bird and mammal species will be extinct in 300 years on current trends of over-exploitation and clearing of habitats. The consequences of this are felt by non-human nature, through loss of habitat and food, and by humans, as many of these species, if scientifically investigated, could potentially contain sources of food and medicine ("Humans and Nature," 2019).

People modify the environment for their intentions and obtain benefits, or ecosystem services, from nature. These ecosystem services are essential for human well-being and include the delivery of resources like water, timber, food, energy, information, land for farming, and more. Obviously, by using these resources, people affect the environment in many ways. People often reorganize existing ecosystems to achieve new ones that more effectively serve their needs (Lill, 2006). The terms coevolution and coadaptation describe the never-ending process of mutual adjustment and change between human social systems and the environment. People's actions affect the environment, but the environment also influences human activities. Environmental degradation is a fundamental trait of our population's continuous progression. We know we are crippling the environment and can do something about it; therefore, we should make changes where change is necessary (Robinett, 2014).

Environmentalism can be generally defined as an ideology or social movement. It focuses on fundamental environmental concerns and associated social, political, and economic issues stemming from humanity's interactions affecting the natural environment (Slocombe, 1984). Nearly everything a human does is in response to the environment. Our lives are defined by what

is around us and what we find in front of us, whether this means accepting, dealing with, or changing it. Human interaction has been the pattern since primates first stood up, became *Homo erectus*, and continues today. The Earth affects humans, and humans affect it back, viewing characteristics and patterns as problems and challenges, and finding a solution. E.O. Wilson believes we are hard-wired with an innate affinity for nature, a hypothesis he calls biophilia. However, research shows that if children do not have the opportunity to explore and develop biophilia during their early years, biophobia, an aversion to nature, may take its place. Biophobia can range from a fear of being in nature to contempt for what is not manufactured and managed to an attitude that nature is nothing more than a disposable resource (Cho, 2011).

So why do we destroy so many species and habitats? Because it is natural to do so. Every other species on the planet does the same thing, but they cannot adapt nearly as quickly as we do, so they have not been able to do so on the scale we manage to accomplish. Species had gone extinct from predators or starvation long before humans were ever around or anything remotely resembling humans. Entire habitats have been damaged beyond recovery due to invasive species causing catastrophic chain reactions with their introduction before we existed. It is not like we are doing anything new that is unnatural in that regard; we are just the best ones at doing it by orders of magnitude (MacLeod, 2018). Richard Louv, American journalist and author of *Last Child in the Woods*, concluded, "The natural world's benefits to our condition and health will be irrelevant if we continue to destroy the nature around us. That destruction is assured without a human reconnection to nature (Louv, 2005)." If we want to protect our environment and biodiversity, creating chances to reconnect with nature is crucial for children and adults. We need to spend more time unplugging and finding ways to let nature balance our lives (Cho, 2011). Nature is our greatest medicine cabinet. It has provided humankind with many life-saving

medicines, from quinine to aspirin, from morphine to numerous cancer and HIV-fighting drugs, and now CBD. There is no question that additional important medications, perhaps even miracle cures, lie untapped in the world's ecosystems. Researchers estimate that less than one percent of the world's known species have been fully examined for their medicinal value. However, the ecosystems that have yielded some of the world's most important and promising drugs, such as rainforests, peat swamps, and coral reefs, are also among the most endangered. Preserving ecosystems and species today may benefit, or even save, millions of lives tomorrow (Hance, 2011).

Friedrich Engels, a German philosopher, communist, social scientist, journalist, and businessperson, saw humans and nature as inextricably linked. Engels wrote: *"...* we by no means rule over nature like a conqueror over a foreign people, like someone standing outside nature – but … we, with flesh, blood, and brain, belong to nature, and exist in its midst … all our mastery of it consists in the fact that we have an advantage over all other creatures of being able to learn its laws and apply them correctly. Furthermore, with every day that passes, we are acquiring a better understanding of these laws and getting to perceive both the more immediate and the more remote consequences of our interference with the traditional course of nature ("Humans and Nature," 2019, p. 4)." Engels saw nature as the starting point of human activity and rejected the idea that humans were somehow separated from the natural world but saw humanity as part and parcel of the natural world. It is not enough to see the immediate area the forest fire has burnt down but also to look at the effects on the food chain in the wider area of the forest and the effects of fires on the atmosphere ("Humans and Nature," 2019). "This activity suggests we need to move away from a conservation model of protecting the Earth from change to a design model of positively and proactively shaping the types of changes taking place, stated

Nicole Boivin, archaeologist, and director of the Max Planck Institute for the Science of Human History and of Oxford University (Clark, 2016, p. 4).”

In the last two decades, the relationship between people and place in the context of green spaces has received attention in the academic literature about its importance for the vitality of communities and their surrounding environments (Burton et al., 2006). Studies have shown that green space can promote social cohesion and group-based activities, which are crucial for maintaining social ties, developing communities, and increasing individual well-being (Maas et al., 2009). During the past four decades, researchers, health practitioners, and environmentalists have begun to explore the potential link between the human-nature relationship and its impact on people's health. This link, in part, owes to the increasing evidence accumulating in research literature centering on the relationships between the following areas: chronic diseases and urbanization, nature connectedness and happiness, health implications of contemporary society's lifestyle choices, as well as the adverse impacts of environmental quality on the health of humans and non-humans alike (Bird, 2012). Such health-related effects include social isolation, emotional well-being, and other psychiatric disorders such as attention deficit disorders, anxiety, and associated physical symptoms (Sallis et al., 2012). Reasons for these proposed links have been suggested to originate from various behavioral patterns such as unhealthy diets and indoor lifestyles associated with consumerism, urbanization, and anthropogenic polluting activities (Malik et al., 2013).

Nature is good medicine for our emotions, while the modern world poses unique threats to our well-being. Studies estimate that most U.S. citizens spend 90-95% of their time indoors and an increasing amount of their time looking at one screen or another, even though research shows both have negative effects on our health. In 2004, the World Health Organization (WHO)

showed that rates of mental illness were far higher in the U.S., where over 85% of citizens live in urban settings, compared to elsewhere in the world. WHO also found that the frequency of anxiety disorders is far worse in developed countries than in developing countries, and depression is more common in wealthier countries than in poorer ones. It is no secret that modern life is becoming increasingly stressful, with more and more people reporting anxiety and depression, including a growing percentage of youths. Perhaps most troubling, though our society has provided a robust medical response with increasing amounts of prescribed medications, the situation only seems to worsen (Chalquist, 2009).

We need to get human beings back into a lifestyle more consistent with the biological reality of our species: the need for more rest and play, less work, the need for community and family time, a natural diet, time in green space, and the sunshine. Time with our hands and bare feet in the dirt, growing our food, swimming or running outdoors, hiking up a mountain trail or through the forest. In the U.S., one of the greatest early proponents of the healing potential of nature was John Muir, a botanist, conservationist, environmentalist, engineer, geologist, writer, philosopher, and naturalist. In 1901, Muir wrote, "The tendency nowadays to wander in wildernesses is delightful to see. Thousands of tired, nerve-shaken, over-civilized people are beginning to learn that going to the mountains is going home, that wildness is a necessity, and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers but as fountains of life. Awakening from the stupefying effects of the vice of over-industry and the deadly apathy of luxury, they are trying as best they can to mix and enrich their little on-goings with those of nature and to get rid of the rust and disease (Muir, 1901).” If Muir thought nature was important in 1901, how might he feel today?

Today many children and adults suffer from what Richard Louv calls nature-deficit

disorder, reduced awareness, and a diminished ability to find meaning in our lives. Children no longer can play freely in nature, explore woods, or wade in a stream, and fewer natural areas are accessible. Children's time is structured; their lives are more protected as parents worry about stranger danger and insect-borne diseases and germs: with Covid-19 being the most current. Furthermore, schools are increasingly cutting back on recess and field trips (Cho, 2011). However, research shows positive associations between human health, intelligence, and nature. Studies reveal that children are healthier, happier, and perhaps even smarter and more creative when they have a connection to nature. Nature positively affects children with ADD, asthma, and obesity, and being in nature relieves stress and improves physical health. Adults who work in spaces incorporating nature into their design are more productive, healthy, and creative, and hospital patients with a view of nature from their window heal faster (Cho, 2011).

The most important feature of human nature is its variability, adaptability, and enormous potential ("Humans and Nature," 2019). The challenge is to find tactics for environmental management that give people the quality of life they seek while protecting the environmental systems that are also the foundations of our well-being. Humans play a vital role in nature, just like everything else. What separates us from others is our ability to understand our place within it. In order to achieve a sustainable future in which humans assume a more natural role and have less of an impact, we must reconsider our role and relationship with nature. Changing how we regard nature has clear political, economic, and social repercussions. Our cognitive ability forces us to reevaluate our position in the world rather than continue to degrade it (Robinett, 2014). Teaching people about the environment, evolution, and ecology provides them with the tools for change. A worldwide environmental education program can galvanize people into forming new ideas and opinions of the world and understanding their place within it (Robinett, 2014).

Recognizing the interdependence of social and environmental connections suggests we should inspire social policies and institutions that include connections with the natural world as an essential part of society. Such institutions could include formal and informal educational environments, conservation organizations, urban and non-urban parks, and other instruments that present environmental knowledge and experiences. A worldwide education program could go a long way in encouraging change in how we view each other and our environment. For the Earth to retain its balance, we must not overstep our bounds as a species. This change in action requires a universal effort to reevaluate our relationship with nature and adjust as needed (Robinett, 2014).

After thousands of years of societal evolution, we find ourselves at the top of technology and pollution. We are already seeing the effects of our industrial ways through the extinction of species, melting glaciers, and destroying the landscape (Robinett, 2014). Our role within nature should be one of subsistence rather than commercialization. We have exploited the world for too long, and the consequences of doing so are everywhere. We must respect the natural order of things and find a way to live accordingly (Robinett, 2014). Furthermore, to survive, we must understand that we depend on a natural, healthy global environment (Golding, 2009). Today, we speak of preserving world biodiversity, saving the planet's lungs, and mitigating global climate change. No longer are humans overreaching in just one region; we are overreaching the whole planet, stretching ecological systems to a breaking point (Hance, 2011). Our definition of nature needs to be broader. We need to get away from the idea that nature is out there and that we must visit and rethink nature's role in our cities. With over half the world's population now living in cities, we face the end of meaningful experiences in nature or the beginning of new kinds of cities and a new definition of nature. According to Louv, conservation is no longer enough; we

must also restore or create natural habitats on our farms and ranches, in our cities, neighborhoods, commercial buildings, yards, and on our roofs to protect the biodiversity that all living creatures, including humans, need (Cho, 2011). Find small openings for nature every day, whether in the country or the city, at home, in the workplace, in schools, and neighborhoods. Plant native species in our backyard and leave part of it wild, take kids fishing and hiking, build a bird feeder or go bird watching, walk in the park, ride a bike, set up a community garden, have a picnic, or exercise outdoors. We must re-establish our place in nature as part of nature and a partner with nature. The time is now for human beings to step up, take ownership of the damage we have done to our Earth and decide how we want our legacy to read. We will be either destroyers or saviors. This legacy is totally up to us.

During human evolution, we have looked to nature for answers regarding our existence, and because of this, the mythologies of different cultures are strongly connected with nature. These mythologies, which carry with them moral and spiritual significance, are part of our culture and provide us with a connection with nature which helps shape our identity. Today's technology has forced us away from this connection with nature, and creating opportunities to reconnect with our environment is crucial. University campuses need to offer these opportunities by providing outdoor places so students can spend more time unplugging and finding ways to let nature balance their lives. Humans have a primal need to sit around and tell stories, which promote social cohesion and are crucial for maintaining social ties, developing communities, and increasing individual well-being.

In recent years, much has been learned about human responses to vegetation and landscapes. However, despite the progress in this area, several important questions still need to be solved. More work is needed to establish relationships between visual landscape

characteristics, aesthetic and emotional responses, human health measures, and economic productivity. Another factor that needs further exploration is the relationship between landscape preference and culture. Culture is arguably the most influential factor affecting preference because people grow up in a particular culture, which provides informal lessons on how to perceive the world. Cross-cultural research has become more critical today because the effect of globalization has intruded into our daily life. A question such as whether a civilization's survival is related to its respect for landscape should be an exciting subject matter to be studied. Likewise, studies on the influences of cultural attitudes and values towards nature are essential for landscape architects, planners, and building architects to establish the relationship between landscape preferences and human well-being while paying attention to how certain cultural groups collectively express landscape preferences. This information is imperative for how the landscape should be designed and managed. Another area lacking research is how university students' chosen field of study affects their opinion of landscape styles and different plant types and how the landscape of the buildings within the schools making up the university can influence students to attend that university. If this was known, the landscape designers could help the school’s recruitment and retention rates in the long run. Great landscaping is vital when colleges compete for students, striving for sustainability and boosting school pride (Delano, 2019).

Human Creativity

Nature, thus landscapes, can be a significant source of creative inspiration in two ways, direct and indirect. The most obvious is the direct way, just by being in or looking at nature, creative individuals produce art, and music, design new inventions and ponder our existence. Campus landscapes allow students to get out of their rooms and use the trees, flowers, and green spaces as inspiration, not requiring them to travel somewhere else, thinking they need to find

nature on their own. The less obvious way is to use the campus landscape to allow our brain to power down and open up to the many possible solutions to creative roadblocks. The campus landscapes can help students be more mindful, thus, more creative.

There is no doubt that today, most adults and children spend more time indoors interacting with media and technology than participating in outdoor activities (Andrews, 2018). For example, 70% of today's mothers in the U.S. recalled playing outdoors daily as children, but only 26% say their kids play outside daily (Worrall, 2017). That is a significant change. After school, kids came home, met their friends, and ran around the neighborhood. Now kids are programmed with adults in some organized sporting activity if they are outside at all. Organized activity is neither free time nor exploratory play, thus stunting our ability for creativity. Many experts think humans need to be in nature more to gain a strong sense of themselves and learn social skills and problem-solving (Worrall, 2017). If this is the case, what impact does it directly have on our creativity (Andrews, 2018)? For that matter, what is creativity? Even though definitions differ, creativity is generally defined as a useful novelty, not a novelty for its own sake, but a novelty that can be applied and add value to products and services (Oldham & Cummings, 1996). Creativity is further defined by any act, idea, or product that changes an existing domain or transforms an existing domain into a new one.

J.P. Guilford, an American psychologist, and test and intelligence researcher, defined what characterizes the thoughts involved in a creative process. It all begins with the creatives being sensitive toward problems, which makes them aware of things that do not work or fit together and makes them curious to find out why. Creatives get lots of ideas, and their thoughts are new, not just duplications of old ideas. Creatives are flexible and able to shift between different perspectives allowing them to view a problem from different angles and branch out into

new conduits of thought. Finally, creatives think in a synthesizing way, organizing ideas into larger, more inclusive patterns, and as part of their analysis, they begin to see the relevant and exciting aspects (Guilford, 1950). On the other hand, talent differs from creativity in that it focuses on an innate ability to do something very well (Csikszentmihalyi, 2013).

Two recent studies have shown that our creativity and problem-solving skills suffer when we stay inside rather than explore the outdoors (Oldham & Cummings, 1996). Numerous other studies have shown that spending time in nature is good for physical and mental health. Moreover, while creative thinking and creativity are often associated with artists, writers, and other creative professionals, it applies to most job functions (Stanford, 2017). Since nature and the great outdoors are crucial to our creativity, it is easy to understand how nature effectively motivates and inspires us.

Creativity is a typical human capacity. Almost all other animals behave according to more-or-less fixed action patterns representing immediate responses to the environment (Kaufman & Kaufman, 2004). One early theory of creativity referred to persons who expressed extraordinary thoughts, were exciting and stimulating, and appeared unusually bright, which may bring them closer to being brilliant rather than creative. The second way the term can be used is to refer to people who experience the world in novel and original ways. They tend to be more personal or a little "c" creative. The final use of the term identifies individuals like Leonardo, Edison, Picasso, or Einstein, who have changed our culture in some important respect, as the truly big "C," Creative ones (Csikszentmihalyi, 2013). It is possible to make a creative contribution without being brilliant or personally creative, just as it is possible, even likely, that someone personally creative will never contribute to the culture (Csikszentmihalyi, 2013).

The creative process consists of the following phases: Preparation, Incubation, Ideation, and Evaluation. Preparation is when a person directs their attention to a particular topic, gathers information, looks into exciting issues, and provokes curiosity. Incubation includes conscious work stops, and attention is directed to other things, while unconsciously, the creative process continues (Wallas, 1926). This unconscious scanning is based on personal, visual, and sensory qualities (Ehrenzweig, 1968). Ideation is when new ideas suddenly come to mind, and the work done during the preparation phase turns into concrete and conscious ideas. Evaluation is when logical and rational thought returns to decide whether the insight is valuable and worth pursuing (Wallas, 1926). It may be difficult to precisely say which phase of a creative process nature makes the most significant positive difference because, in real life, these phases are often woven together, overlapping. However, nature makes the most significant positive difference in the first two phases, the Preparation and the Incubation phases. The Preparation and Incubation phases require more private space than the Ideation and Evaluation phases (Kristensen, 2004). During these two critical phases, nature can be used in the creative process to access the answers already within us (Plambech & Konijnendijk van den Bosch, 2015).

Being in a good mood is essential for anyone's creativity (Eisbach & Hargadon, 2006). This reaction is because negative moods or apprehension restrict attention and lead to ordinary solutions (Heerwagen & Branch, 2001). Because of the recognized significance of poor moods and anxiety, the recuperative powers of nature are being utilized more now than ever, particularly regarding creativity in the business world. Creative people with artistic and inventive personalities are valuable to corporate teams and organizations because they bring new ideas and different viewpoints to the table. They can argue for the value of natural elements in the workplace by demonstrating the benefits of creativity and innovation in their everyday workflow

and life choices. A global marketplace is a competitive situation, but innovation, creativity, and diversity can bring much-needed fresh air into the boardroom and help inspire all to think differently about business and corporate culture (Stanford, 2017).

Aside from its unmistakable charm, nature has been shown to significantly affect creative people's ability to be creative ("Ten Creative Benefits," 2019). Professional environments often have plants and flowers, and walls are often decorated with paintings or pictures of landscapes. People who work in these environments will most likely agree that these displays of nature are pleasant, but many might need to be made aware of the benefits nature is bringing them. The physical environment has long been neglected as a creative contributing factor (Kaufman & Kaufman, 2004). In the past few decades, the effects of nature have been widely studied, and in recent years, many of those studies have discovered and confirmed the positive effects of natural stimuli (Reuvekamp, 2016). Studies show that creativity and problem-solving abilities soar when we spend time in natural places (Andrews, 2018). Nature can positively affect our attitude, and our frame of mind is vital for our creativity. Creative problem-solving, combining ideas in new ways and making new associations, is more likely to occur when people experience positively defined moods than when they are in neutral or negative moods (Amabile, 1996). A study by the University of Kansas found that just four days of disconnecting from technology and spending time immersed in nature increases performance on a creative, problem-solving task by 50% (Csikszentmihalyi, 2013).

If we cannot get outside, we can still benefit from simply looking at images of natural scenes. Research has shown that exposure to photographic pictures of nature, compared to images of urban environments, positively affects emotional states and cognitive performance (Ulrich et al., 1991). A study by Rita Berto, professor of Environmental Psychology and

Cognitive Psychology at Washington University in St. Louis, MO, found that just viewing pictures of natural scenes had a restorative effect on cognitive function. People's performance was restored by images of trees, fields, and hills, but not by streets, industrial units, or even complex geometric patterns (Berto, 2005). The benefits of introducing natural elements to indoor spaces are tied to the theory by Edward O. Wilson (1984) regarding biophilia which proposes "the instinctive affinity that humans have with the natural world and other living systems."

Moreover, natural elements have been shown to increase feelings of well-being and creativity by 15% and productivity by six percent (Stanford, 2017, p. 2). Filling our workspace with plants, photographs of our beautiful world, and natural objects is calming to the spirit and nurtures our creativity ("Ten Creative Benefits," 2019). For example, Rachel Kaplan, a professor in Environmental Psychology at the University of Michigan, retired, shows in two studies that a window view of an environment with natural elements positively affects job satisfaction (Kaplan, 1993). Window views of nature and the presence of plants are only sometimes possible or practical in professional environments. Indoor plants must be taken care of regularly or eventually replaced, resulting in regular costs and effort. If our office building is far from nature, we cannot have a window view of a natural setting. Studies have shown that imitations or representations of nature can also have positive effects. For instance, photographs (Berman et al., 2008), videos (de Kort et al., 2006), and murals (Felsten, 2009) have been found to have positive consequences. Such depictions of nature provide opportunities to benefit from nature's effects when nature is unavailable (Felsten, 2009). Moreover, not having natural views or indoor plants can lead to unnecessarily high anxiety in office workers.

One of the most creative environments available is located away from urban spaces, for example, natural surroundings such as forests, riverbanks, and seashores (Stanford, 2017).

National Geographic published a story about the importance of nature to creativity and reducing trauma and overall brain functioning. David Strayer, a Cognitive Neuroscientist at the University of Utah, conducted quite a few neurological researches from which he has formulated the hypothesis that "being in nature allows the prefrontal cortex, the brain's command center, to dial down and rest, like an overused muscle." It is as if nature is mandatory for our continued good health and brain function rather than simply a luxury or an occasional pastime (Stanford, 2017, p. 2). According to Urban Forestry researchers at the University of Washington, "Outdoor activities can help alleviate symptoms of Alzheimer's, dementia, stress, depression, and improve cognitive function in those recently diagnosed with breast cancer (Stanford, 2017, p. 2)."

Even though we may not have much time to devote to nature, being outside for short stints lifts our disposition and releases tension, allowing pressure to fall away. "Nature is a huge healer," says natural health expert and author Jane Alexander. "There can be nothing more soothing than simply lying down on the earth and visualizing all your negative thoughts and feelings oozing out of you and into the earth ("Ten Creative Benefits," 2019, p. 3).” A study published in the *International Journal of Environmental Research and Public Health* reiterated that being around nature can lower stress levels and boost our mental health. An American study showed that those who lived closer to trees, grass, or flowers had less worry, anxiety, and depression than those in neighborhoods with less than ten percent tree canopy ("Ten Creative Benefits," 2019).

What makes nature so beneficial? One reason is that nature acts as a reboot for our overloaded brains. Modern life is constantly bombarding our minds with information and distractions. This bombardment makes it nearly impossible to hear the creative whispers of our unconscious minds over such mental noise. Removing these distractions makes our minds free to

wander, leading us on exciting new journeys across undiscovered paths (Burkley, 2017). Another less apparent reason is that being in the open air unconsciously stimulates our minds to think more openly and can act as a powerful antidote to the constant distraction of our digital lives. It enhances higher-order thinking, restores attention, and boosts creativity (Gregoire, 2016). Those interferences drain our attentional resources, making us distracted and cognitively tired, making it more challenging to focus, think deeply, and produce new ideas. "You let the prefrontal cortex rest, and all of a sudden, these flashes of insight come to you," Strayer says. "It supports creativity, positive well-being, reductions in stress. There are many reasons why it is helpful (Gregoire, 2016, p. 1)."

Today, we live with ever-present technology designed to pull our attention constantly. However, many scientists believe our brains were not made for this kind of information bombardment, which can lead to mental fatigue, being overwhelmed, and burnt-out requiring attention restoration to get back to a normal, healthy state (Suttie, 2016). Strayer believes being in nature restores depleted attention circuits, which can help us be more open to creativity and problem-solving (Suttie, 2016). "If you have been using your brain to multitask, as most of us do most of the day, and then you set that aside and go on a walk, without all of the gadgets, you have let the prefrontal cortex recover," says Strayer. "And that is when we see these bursts in creativity, problem-solving, and feelings of well-being (Suttie, 2016, p. 4)." With all of these benefits to being out in nature, it is probably no surprise that something about nature, along with thoughtful landscapes, makes us feel alive and vital. Being outdoors gives us energy, makes us happier, helps us relieve the everyday hassles of our overscheduled lives, opens the door to creativity, and allows us to be kind to others (Suttie, 2016). The research also suggests that something about nature keeps us psychologically healthy, which is good to know, especially

since nature is a free resource. Many of us can access it by just walking outside our door. Results like these should encourage us as a society to consider how we preserve our wilderness spaces and urban parks more carefully (Suttie, 2016).

Exposure to nature is one of the critical foundations of a meaningful life (Beatley, 2012). Contact with nature lowers our blood pressure, reduces nervous tension, alters temperament positively, enhances cognitive functioning, and in many ways, makes us happy. A 2010 study from the University of Rochester found that spending time outdoors makes us happier and can lead to an increased sense of vitality. According to researchers, nature can lead to a surge of energy (Holmes, 2015). This surge could be why we feel so energized, mentally and physically, when we return from spending a day in the park or going on a hike. Do we know that feeling when our brain seems to be sputtering to a halt? Researchers call that mental fatigue and enjoying the outdoors help eliminate weariness. One thing that can help get our mind back into gear is exposing it to restorative environments, which, research has found, generally means the great outdoors. One study found that people's mental energy bounced back even when they just looked at pictures of nature. Studies have also found that natural beauty can elicit feelings of awe, one of the surest ways to experience a mental boost (Loria, 2018). Spending time outside has been shown to reduce levels of inflammation, a physical reaction linked to problems with depression, digestive issues, autoimmune disorders, and more. It also helps lower our blood pressure and heart rate. Plus, we get an immune boost! Trees are the key here, so if we are not in an area where we can stroll under some shady trees on our lunch break, see if we can find a local arboretum and drop in on the weekend. Our improved health will be well worth it (Sullivan, 2022).

The more we get involved with nature, the more we can draw inspiration from it. Nature brings us back into the moment and place of peaceful meditation, allowing us to be human ("Ten Creative Benefits," 2019). Everything we know is learned by carefully observing nature around us. However, we confine ourselves deeper and deeper inside towns and cities, further cutting our slender and fragile connections with nature. Nothing is more nourishing or nurturing our spirit, mind, and body and soothing our soul than being in the natural world. Wild and untouched environments are becoming more vulnerable, and we feel the effects of being cut off from the natural world ("Ten Creative Benefits," 2019). Ruth Ann Atchley, Department Chair and Associate Professor of Cognitive and Clinical Psychology at the University of Kansas, asserts, "There is a growing advantage over time to being in nature. It is when you have an extended time surrounded by that softly engaging environment that you start seeing all kinds of positive effects on how your mind works (Platt, 2012, p. 1)."

Just as creativity is a natural part of being human, spending time outdoors is arguably the most natural and beautiful way to inspire our innate creativity ("Ten Creative Benefits," 2019). Many people feel more creative and freer from limitations in nature. Even the most resistant writers and artists find their creativity enhanced, passion reignited, and insight awakened by spending time in nature. Many wake up early to experience the serenity and fresh creativity at this scenic time of the day. The rustling of leaves, the chirping of birds, and the pattering of raindrops are some of the inspiring sounds of nature. With nature's openness and limitlessness, humans can be more open to new, different, and wild ideas (Plambech and Konijnendijk van den Bosch, 2015). Just as we are part of nature, our bodies and their internal rhythms are tuned to the rhythms of our Earth. The sights and sounds, scents, and feel of being outside, whether in a humble, thoughtfully designed garden or a grand national park, can rejuvenate and inspire quite

unlike anything else. If we feel uninspired or disconnected from our adventure, we reignite our passion and purpose by stepping outside ("Ten Creative Benefits," 2019). "Nature is the great visible engine of creativity, against which all other creative efforts are measured," said Terrance McKenna, American ethnobotanist, mystic, psychonaut, lecturer, author, and an advocate for the responsible use of naturally occurring psychedelic plants, in a talk in the early nineties ("Ten Creative Benefits," 2019, p. 1).

One of the most vital forces of inspiration is the natural world. To draw inspiration from nature, we need to be mindful. While walking in a garden, field, or park, we observe the flowers blooming around us, the delicate flutter of a butterfly wing, the tranquil chorus of songbirds, and the gentle wind that caresses our faces. These can all help our body relax, allow our spirit to soak in the beauty surrounding us, and our mind to be liberated creatively ("Ten Creative Benefits," 2019). Nature is not designed for a specific human behavior as opposed to many elements of urban environments, e.g., a bench is designed to sit on, a swing to swing on. This mindfulness is vital for generating ideas because it does not force our thoughts in a specific direction. The freedom to explore and choose is characteristic of an environment that enhances creativity (Amabile, 1989). Our creative expression becomes more instinctive when immersed in the calm of a forest or a restorative scene. Nature permits us to think wild ideas and big thoughts and dream ourselves away into our inspiration, where everything gets exciting (Plambech & Konijnendijk van den Bosch, 2015). There is a cognitive advantage to disconnecting and being immersed in a natural setting. Even walking in a city park for as little as twenty-five minutes is enough to boost cognitive functioning, such as creativity (Andrews, 2018).

In nature, our attention is taken out of its routine, and we are encouraged to follow novel and attractive patterns (Csikszentmihalyi, 2013). Nature enables us to become curious, explore,

get surprised, and be challenged positively; it is an excellent source of inspiration (Plambech & Konijnendijk van den Bosch, 2015). When the prefrontal cortex, the region of the brain involved in planning complex cognitive behavior, personality expression, decision-making, and moderating social behavior, quiets down, the brain's default mode network kicks in, and suddenly, flashes of insight come to us. It is similar to an imagination network activated when we are not focusing on anything specific. Instead, we are engaged in easy-going, non-taxing activities like walking in the woods. Our minds can wander idly or reach into our deep storehouses of emotions, ideas, and memories (Andrews, 2018).

The imagination network is critical to creativity. It draws on many regions across the brain, including the hippocampus, where memories are formed and stored, and the medial prefrontal cortex, which is involved in self-focused processing, including autobiographical memories. The imagination network enables us to envision other perspectives and scenarios, picture the future, remember the past, understand others and ourselves, and create meaning from our experiences (Andrews, 2018). Many believe nature is hands down one of the best cures for the constipated writer. Furthermore, many writers, like Joyce Carol Oates and Malcolm Gladwell, are lifelong outdoor runners. They do not just run to boost their physical health; they also increase their writer's mind (Burkley, 2017).

Exposure to nature significantly improves cognitive functioning and creativity. Nature, of course, has no ceiling, so being out in the open air may prime our minds to think outside the box and shoot for the stars (Burkley, 2017). This relationship gets activated when we are engaged in laid-back, non-taxing activities like showering, washing the dishes, or walking in the woods, which explains why people tend to have so many "aha" moments in these situations. The next time we experience writer's block, stepping outside may be a better solution than sitting and

suffering (Gregoire, 2016). Taking in the stunning beauty of oceans, mountains, or vast deserts is one of the most sure-fire ways to feel awe. This powerful emotion plays an essential role in creativity and psychological well-being. A 2012 study from Tel Aviv University found that awe, that sense of wonder and smallness in the face of something greater than oneself, leads to creative boosts by facilitating expansive thinking (Gregoire, 2016).

Artists of all sorts have been gathering at national parks and remote locales for decades, but what is it about nature that calls to creatives, specifically (Olsen, 2014)? We already know that time off is great for rejuvenating creativity, though just leaving the office does not count. Instead, our brain needs to idle for optimal rebooting for a while. Grounding ourselves in the natural world can nourish our imagination. "The physical effort of getting into the landscape energizes and focuses me, stated Dr. Sam Osherson, Professor of Psychology at the Fielding Graduate University (Osherson, 2016, p. 1)." While there is overwhelming truth in need for a quiet place, free from distractions for the creative process, it is easy to be misled into thinking of creativity as something that springs solely from our heads in isolation from the natural world around us.

So, how do we tune into nature, thoughtful landscapes, and the feel of our bodies in the natural world for inspiration and energy (Osherson, 2016)? A study done by Stanford University found that when people spend time in a natural environment, they experience a natural shift in how they view time. In short, when we spend time in nature, we tend to feel a sense of wonderment as though time is expanding. Instead of feeling pressured by time, or a lack of time, people tend to enjoy time abundance when they are in nature (Patel, 2017). Spending time in nature can help us reduce tension and slow down but also help us find the inspiration we are looking for in our creative endeavors as we get into this time-abundance mindset (Patel, 2017).

In recent years, studies have found that nature can positively affect performance in attention-demanding tasks. Several studies suggest that nature can also positively affect creative performance (Reuvekamp, 2016). A 2012 study found that looking at the color green may help spark our inventiveness (Holmes, 2015). Our liking of green may explain why we appreciate large expanses of open spaces in parks, why we like to live next to golf courses, and why we spend so much time and money making our home lawns lush and green. We could also argue that being outside can distract our mind from a problem, and as we know, some of the best ideas come when we are not thinking about them in the first place. Ever get that feeling of brain fog, where we cannot focus, and it seems like putting a single word on the page is too much even to contemplate? Stepping outside for a breath of fresh air might be all the help we need to beat it. Getting outside restores attentional capacity, our ability to focus and pay attention. If we find our mind darting around like a hummingbird on speed, find a park or other natural space where we can take a brief walk or even sit for a few minutes to absorb the natural world. Looking at trees, mountains, rivers, and other natural features gives our brains a much-needed rest, allowing us to come back refreshed and ready to focus (Sullivan, 2022).

Many of the great physicists of the mid-1900s, like Max Planck, Victor Frederick, Werner Heisenberg, and Hans Bethe, claim what inspired them to try to understand the movement of atoms and stars was the excitement they felt at the sight of tall peaks and the night sky (Csikszentmihalyi, 2013). A similar situation exists in the United States, where Princeton's Institute for Advanced Studies in the physical sciences and its twin for the behavioral sciences in Palo Alto are located in gorgeous settings. The idea is that such a setting will stimulate thought and refresh the mind, bringing forth novel and creative ideas (Csikszentmihalyi, 2013). A great view does not act as a silver bullet, embedding a new concept in the mind. Instead, what seems

to happen is when persons with prepared minds find themselves in beautiful settings and are more likely to constantly discover new connections among ideas or new perspectives on issues. Either way, it is essential to have a willing mind (Csikszentmihalyi, 2013). The evidence does suggest unusual and beautiful surroundings with stimulating, serene, and majestic views instilled with natural and historical touches that may help us see situations more holistically and from novel viewpoints (Csikszentmihalyi, 2013).

According to ART, nature helps us restore from mental fatigue and thus might help increase creative performance. Sine Plambech, Researcher, Anthropologist, and Film Director, and Cecil Konijnendijk van den Bosch, professor of Urban Forestry at The University of British Columbia, support this idea, stating, "nature also helps us to recharge our directed attention, which is needed when analyzing and further developing ideas." Apart from restoring mental fatigue, nature helps people open up to creativity, and it seems beneficial to access natural environments to support creative processes (Plambech & Konijnendijk van den Bosch, 2015, p. 6). If we want to learn anything, we must focus on the information to be discovered. Attention is a limited resource, with just so much information we can process at any given time. A great deal of our limited supply of attention is committed to surviving from one day to the next, making what is leftover more valuable (Csikszentmihalyi, 2013).

Our society's need for creative people calls for different perspectives on enhancing creativity. Innovative organizations need creative employees because creativity provides the raw intellectual materials, ideas, concepts, insights, and discoveries that eventually become new theories, approaches, tools, products, and series which underlie innovation (Plambech & Konijnendijk van den Bosch, 2015). Recent research in the *Journal of Environmental Psychology* has shown that feeling connected to nature is related to innovative thinking.

Innovative thinkers must be open-minded to embrace novel ideas. They also found it enhanced holistic thinking, which considers the interconnectedness of all parts of a creative problem. "An understanding of nature also teaches us that all things in the natural world, including life cycles and ecosystems, are interrelated. Similarly, holistic thinkers emphasize the interconnectedness of ideas within a system ("Ten Creative Benefits," 2019, pp. 3-4)." For the brain to function at its highest possible level, we need to reduce fatigue and boost our energy levels. This new energy allows our brain to restore itself to start thinking of new ideas and harnessing our highest analytical abilities. It is reasonable to assume that nature can positively affect creative performance from all this.

We spend an increasing amount of time indoors, which is not necessarily the best thing for our creativity. Several scientific studies have shown that humans get a considerable boost in energy, productivity, and creativity by returning to nature and spending time in the great outdoors (Sullivan, 2022). When we are exhausted, drained, and feel like we cannot carry on with our day, most of us reach for a cup of coffee, tea, soda, or some other caffeine-loaded booster. However, what if we could give ourselves a jolt of energy without that? Taking a quick walk outside may do the trick! Studies have shown that a brief twenty-minute walk outside can provide us with all the benefits of a cup of coffee and more. Even imagining being in nature for twenty minutes helped perk up participants in those studies but walking outdoors gave them the biggest energy boost (Sullivan, 2022). Research also suggests that going for a walk helps relieve writer's block and gives them a much-needed change of perspective while problem-solving or working on a challenging work-based problem. Many people hold the mistaken opinion that working longer and harder, without a break, will help them produce better results. However, the opposite is often true where sometimes, it simply takes a change of scenery or an inspiring hike

through the forest to help find the words or ideas needed to finish the job (Stanford, 2017).

If we are blessed with the use of our legs, use them. Walking in the morning and seeing the sun's first rays touch the flowers is perfect and undiscriminating in its creative inspiration ("Ten Creative Benefits," 2019). A study by the University of Kansas found that those who hiked through nature and were peaceful and calm in their approach scored 50% higher than other test groups on their exams. "Taking a walk, especially out in nature, among trees, can release a great deal of stress," says Taoist practitioner, author, and teacher, Stuart Alve Olson ("Ten Creative Benefits," 2019, p. 4). Walking stimulates the generation of ideas. When we walk, our sight moves, so our gaze is not fixed on one place; therefore, the brain will also float around and move like a bouncing ball. It stimulates the brain; consequently, we get good ideas when we are in motion (Plambech & Konijnendijk van den Bosch, 2015).

Walking in nature using our spontaneous attention allows us to experience unnoticed things (Kaplan, 1998). Nature helps us feel safe, can be calming, and provide a space for peace and quietness, allowing us to come up with new ideas and see things from a new perspective. One becomes recharged by being in nature. Plambech stated, "When I walk around in the garden, I become calm and loaded with energy, something which can be used when I am creative (Plambech & Konijnendijk van den Bosch, 2015, p. 5)." It also helps to take a walk in nature if one is stuck; a change of scenery can help the process start again.

Creativity sometimes requires us to take a break and do something other than what we are presently working on (Amabile, 1996). Creative people often experience how taking a timeout suddenly leads to a breakthrough with what they are working on. Nature is a favored place to take this timeout. If one is baffled, it is a good idea to take a walk, preferably in thoughtful landscapes that offer an experience of space, such as the forest, being guided by a path, curious

to see what is behind the next bend (Plambech & Konijnendijk van den Bosch, 2015). It is about the feeling of space created by the tall tree trunks and high treetops, now and then with an opening to the sky, which figuratively helps one's thoughts lift off. This walk can be an almost religious experience, like being in a cathedral (Plambech & Konijnendijk van den Bosch, 2015). In 2013, research published in the *British Journal of Sports Medicine* showed that walking in a city park or any green space for as little as twenty-five minutes is enough to give our brain a rest and boost cognitive functioning (Andrews, 2018). Walking outside enables us to gain other perspectives and imagine different situations. It is a sure cure for writer's block (Andrews, 2018). These recent research studies have far-reaching effects on city planning, our education system, and work environments. However, they also suggest an easy-to-enact change; get outside more. To boost creativity, head out on a two-week trek into the Alaskan wilderness or take a stroll in a nearby city park (Andrews, 2018).

Hiking and any physical activity can reduce stress and anxiety; however, something about being in nature may augment those impacts (Suttie, 2016). Recent experimental results in Japan showed that those who walked in forests had significantly lower heart rates and higher heart rate variability, indicating more relaxation and less worry. They reported better attitudes and less anxiety than those who walked in urban settings. The researchers concluded that walking in nature had a beneficial effect on stress reduction, above and beyond what exercise alone might have produced (Suttie, 2016). Our sensory system evolved in the natural world, and when we walk in those spaces, our brains become relaxed because these are things we were designed to look at, hear, and smell. For instance, our immune cells, or natural killer cells, which fight cancer, increase after walks in forests. As a result, Japan now has 48 therapy trails, referred to as *shinrin yoku* or forest bathing, regarded as a form of nature therapy. The U.S. Forest

Service also takes this seriously as a public health benefit. They have begun medicalizing the forest for the same purpose (Worrall, 2017).

Several other studies have shown that even looking at trees through a window can reduce our stress levels, and a walk through a forested area or a grove of trees has profound benefits for our stress and health. Taking a stroll through the trees can lower our cortisol levels, a key indicator of stress, and generally makes us feel calmer and more optimistic about life. Best of all, the positive effects continue for up to a month after we have immersed ourselves in nature (Sullivan, 2022). A study by Stanford University has shown that walking makes us more creative. People who walked for anywhere from five to fifteen minutes scored higher on creative thinking and innovative problem-solving tests, coming up with more interesting, new, and different answers than people who sat still in the same environment. Overall, creativity was boosted by 60% just by walking. How one spends time in a beautiful natural setting matters. Sitting and watching is fine, but taking a leisurely walk is even better (Csikszentmihalyi, 2013).

Devoting full attention to a problem is not the best recipe for creative thinking. When we think deliberately, thoughts are forced to follow a linear, logical, hence predictable direction. However, when attention is focused on the view during a walk, part of the brain is left free to pursue associations that generally are not made. This mental activity occurs backstage, and we become aware of it only occasionally. Because these thoughts are not at the center of attention, they are left to develop independently (Csikszentmihalyi, 2013). The next time one struggles with resolving a sticky plot point, take a quick walk around the neighborhood (Sullivan, 2022).

Observing the beauty of nature led humans to develop and reveal their spirituality in the form of art. From painting cave walls to writing *haiku* poetry, a significant form of Japanese verse, written often on the subject of nature or one of the seasons, we have always searched for

and found inspiration by observing our Earth, its seasons, and natural wonders ("Ten Creative Benefits," 2019). Every spiritual path can only be enhanced and our connection to ourselves and our world released by being in nature. When we journey into the wilderness, we connect with our inner wilderness and discover our true nature ("Ten Creative Benefits," 2019). Staying in nature reconnects us with our true, authentic selves, allowing us to live with more integrity and sincerity toward others. We wake up to our unique existence, being true to ourselves and acting following our genuine and authentic values (Inspire Portal, 2019). It is not about finding peace in God or finding religion; it is about this more immediate connection to nature and how that spurred our spiritual imaginations, how being in more rural, natural environments made us whole as people (Worrall, 2017).

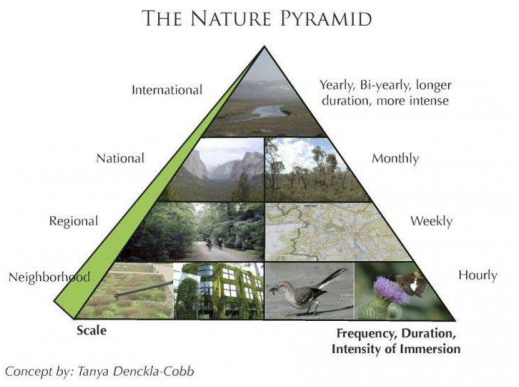
Nature might also be a prime destination for creative folks because of the primitive pleasures it offers, like the smells, sounds, and sights that greet our senses. We can expect at least one sensory boost when we hit the trail. Color theory expert Tobi Fairley supports the idea that green has been linked to increased creative thinking (Olsen, 2014). The more we get away from the stresses of daily life and the more time we spend outdoors, the greater our creativity (Platt, 2012). Furthermore, nature triggers fond memories for many of us, which can help spur other ideas for the future (Olsen, 2014).

According to researcher David Strayer, people have discussed their reflective experiences in nature for several years. "Now we are seeing changes in the brain and in the body that suggest we are physically and mentally healthier when interacting with nature (Suttie, 2016, p. 1)." The reasons for this effect are unclear, but scientists believe humans evolved to be more relaxed in natural spaces. Studies have provided evidence that being in nature, or even just looking out of a window onto a natural scene, somehow calms us and relieves anxiety (Suttie, 2016).

Furthermore, while the research may not be conclusive, Strayer is optimistic that science will eventually catch up to what people have sensed all along; there is something about nature that renews us, allowing us to feel better, think better, and deepen our understanding of ourselves and others (Suttie, 2016). "You cannot have centuries of people writing about this and not have something going on," says Strayer. "If you are constantly on a device or in front of a screen, you are missing out on something pretty spectacular: the real world (Holmes, 2015, p. 1).”

The perception that immersing ourselves in forests and nature has a healing effect is far more than just folklore. There is an evolutionary component to that oneness. Kathleen Wolf, a Research Social Scientist at the University of Washington College of the Environment (2019), says, "Not only were we part of nature as we evolved, but we were dependent on it. We had to rely on our senses, intuition, and responses to find food, water, shelter, and important things. We hunted or grew our food; we carried it back to the tribe (Holmes, 2015, p. 1)." John Muir, one of America's most influential conservationists, once wrote that "going to the woods is going home." Nature has a way of providing comfort when we need it the most. It resets our thoughts and puts us at peace, just like a visit home could (Holmes, 2015, p. 1).

The Nature Pyramid concept, introduced by Tanya Denckla Cobb at the University of Virginia, is knowing that nature is something we need every day (Cobb, 2020). One of the things being realized is that nature follows a dose curve like other medicines. A little bit of nature is helpful; more nature is even more helpful. As one moves further up the pyramid, try once a month to go to a nature preserve or a park outside the city, as we are fortunate to have incredible wilderness spaces and national parks in America. Science shows that spending time in those spaces can be tremendously helpful in our sense of self, problem-solving, social bonding, and rites of passage (Worrall, 2017).



Many Asian countries have determined that nature should be a fundamental part of democracy and that it is a necessity and a human right. They try to incorporate nature into the fabric of everyday urban life. Nature is not something apart from the city life; it is part of it. In Singapore, they have the City in A Garden concept. They cannot build a skyscraper without incorporating greenery into the building, such as gardens on the roofs or walls, and their public housing projects have beautiful courtyards (Worrall, 2017). "I have been arguing for a while that connection to nature should be thought of as a human right," Richard Louv told the crowd assembled in the courtyard of National Geographic headquarters in Washington, D.C., on June 26, 2013 (Howard, 2017, p. 1). Yale Social Ecology professor Stephen Kellert argues that we must overcome the sense that nature is out there, somewhere else, probably in a national park. What we need today more than ever is everyday nature, the nature all around us in cities, suburbs, and university campuses (Beatley, 2012).

Nature was once our home, which seems embedded in our core. Returning to nature can feel like returning home. After all, when we move into a new home, we first say that we are putting down roots. Although our lives are vastly different, our soul still echoes the outside world. We must allow our spirit to feel nurtured and inspired by the presence of natural settings and thoughtful landscapes by disconnecting from our daily routine and taking time to observe and follow the

cycles of nature (Beatley, 2012). Nature inspires us, enriching the creative process (Plambech & Konijnendijk van den Bosch, 2015).

Gardening is an accessible form of creativity and allows us to bring something new into the world (Stuart-Smith, 2020). "Imagine a therapy that had no known side effects, was readily available, and could improve your cognitive functioning at zero cost (Loria, 2018, p. 5)." It is easier to enhance creativity by changing environmental conditions than by making people think more creatively (Csikszentmihalyi, 2013). Csikszentmihalyi stated, "From time immemorial, artists, poets, scholars, and scientists have sought out places of natural beauty expecting to be inspired by the majestic peaks or the thundering sea (Csikszentmihalyi, 2013, p. 127)." The belief that the physical environment profoundly affects our thoughts and feelings is held in many cultures (Csikszentmihalyi, 2013). Occasionally a single experience of awe fuels a lifetime of creative work. Deepak Chopra, an Indian-born American author, and alternative-medicine advocate, states, "Nature in its unbroken wholeness is inherently creative (Johansson, 2017, p. 155)." Seeing the planet's beauty also makes us want to protect it. Because for better or for worse, our future is now closely tied to human creativity (Csikszentmihalyi, 2013).

Whether we crave a breath of fresh air or a long walk through the wilderness, there is nothing quite like the appeal of nature when we are stuck inside, struggling to get through our day. Leaving artificial environments to relax in natural ones reconnects us to our deeper selves, grounds us, and centers us, healing our entire being. Disengaging ourselves from our daily routine and observing nature's cycles naturally inspires creativity ("Ten Creative Benefits," 2019). In the same way, our body needs to be nourished with healthy foods to function optimally, think clearly, and create; our spirit can feed on beautiful and thoughtful landscapes, from the stillness of forests to peaceful mountain walks, the wonder of the ocean, to the

neighborhood park down to our back yard ("Ten Creative Benefits," 2019). Many see gardening as a coming together of human creative energy and nature's creative energy. Gardening can make it more accessible than other creative, therapeutic activities (Stuart-Smith, 2020).

Science keeps piling up; nature is good for us. The next time we struggle to develop an idea or experience writer's block, go out for a nature walk. We will find that our creativity will soar higher with every step we take (Andrews, 2018). "Idleness isn't a luxury," says Lawton Ursery, Chief Product Officer at UserIQ, writing for *Forbes*, "but rather a necessity to be at your peak. It is backed by neuroscience. Idleness truly makes your brain function better." Where better to idle than in the quiet serenity of a lovely hike in the woods (Olsen, 2014, p. 1)? Lastly, keep in mind that nature has benefits far beyond creativity. So, go already! Get outside and take a walk!

Campus landscapes allow students to get into a good mood which is essential for creativity and problem-solving. Nature allows the brain to dial down, rest, reduce stress, and reboot to enable our otherwise over-loaded brain to hear the creative thoughts of our unconscious mind over the mental noise of our daily lives. Walking through landscapes helps to remove distractions which makes our minds free to wander, restores attention, and boosts creativity. Participants of landscapes benefit visually and gain from the sounds, smells, textures, and color provided by the flora and fauna who call it home. Nature does not necessarily embed a new idea in our minds but allows new connections among thoughts or unique perspectives on issues allowing students to be more creative. Future research could include additional studies on how essential the sounds, smells, textures, and especially the color of landscapes are to developing our mindfulness, thus opening up our creativity. These all-important campus landscapes allow us to be mindful and open us to access answers which are already within us.

Sense of Place

Going to college is tough enough for most students. However, suppose they come from afar, from one size of a community to a different one, or from a country with a different culture or language. In that case, that transition is even more challenging. A primary goal of universities is to help students connect with their chosen university and develop a feeling of being at home. One way to accomplish this is to help them develop a strong sense of place with their campus. To do that, the students need to feel safe and belong to a community where they can grow and thrive. The campus landscape can play a significant role by providing an environment that allows students to recover from stress and be more creative and successful.

One of the oldest beliefs of geography is the concept of place. There are many definitions and descriptions of a sense of place. A simple explanation of place is a particular location or space, or area usually occupied by something. An example of a place is Manhattan or the spot where a specific book belongs. More complete definitions would range from the simple space or location to the more complex area with unique physical and human characteristics interconnected with other places. Sense of place as a phrase has at least two meanings. First, the particular characteristic of a place that makes it what it is (Young, 2020). The second meaning is an individual's particular sense of places they know by experience. We all have a sense of many places we have visited, but a sense of the same place is experienced in many ways by many different people. For many, a third meaning is the only one of consequence: one can gain a sense of place only from being or becoming deeply involved with a place and by coming to know that one place and its inhabitants intimately (Young, 2020).

Place is important because it is an essential aspect of human existence. The word place comes from Greek *plateia hodos* or broadway, from Medieval Latin *placea*, place, Latin *platea*,

open space, and then Old French *place,* place, or spot. The etymology of identity comes from the Latin word *idem*, which then changed into *identitas* same, and today it is known as identity, the quality of being identical (Qazimi, 2014). The word place has been used since the 1970s in geography as a location. It expanded into a place to dwell or the process of making a place a home, later as a theory called *genius loci* or the spirit of place-gathering, thing, dwelling, being-in-the-world, and truth as an inspiration source. The concept of place-identity has been found and used since the late 1970s, described as a potpourri of memories, conceptions, interpretations, ideas, and related feelings about specific physical settings and types of environments (Proshansky, 1978).

What does it take to transform a space into a place? Space can be described as a location with no social connections for a human being. No value has been added to this space. Most contemporary place theories define place as a physical location with three components: the physical setting, human activities, and psychological processes (Tuan, 1974 & 1977). For instance, Edward Relph (1997, p. 26), emeritus professor at the University of Toronto and former Chair of the Division of Social Sciences at the Scarborough campus, defines place as "constructed in our memories and affections through repeated encounters and complex associations." Also, "place is a piece of the environment that has been claimed by feelings (Irish, 1989, p. 10)." These definitions assume that place is inevitably linked to human experience and intention for its existence. Contemporary place theory has popularized the sense of place and place attachment concepts. According to these definitions, a location without human meaning and value is just an empty space, it is placeless, and it is people that make a place or a non-place (Brandenburg & Carroll, 1995).

To understand its importance, we must first know what constitutes a place. Places are composed of actual physical environments or settings and all that occurs in that setting. A place may include various elements, such as natural and artificial physical objects, the spatial organization of the things and their characteristics, people, animals, plants, and the activities of the people and other organisms. The poet Gary Snyder refers to this when he claims, "there are many people on the planet now who are not inhabitants." He teaches that spirit of a place is accessed only through knowledge gained by direct experience in a specific locale; "Know the plants" has become his mantra. When we know the plants, we begin to understand the place, what is possible, and how to live there in harmony with the site and setting (Young, 2020, p. 2).

There are three critical components of place: location, locale, and a sense of place. Location is the position of a particular point on the surface of the Earth. The locale is the physical setting for relationships between people, such as in the South of France or the Smoky Mountains. Place can be applied at any scale and does not necessarily have to be fixed in either time or space. Due to globalization, place can change over time as its physical setting and cultures are influenced by new ideas or technologies. The problem with these basic definitions is that they tend to diminish the holistic, emotive, social, and contextual quality of the concept, robbing it of the very richness that is its appeal (Williams & Stewart, 1998).

A sense of place comes from a feeling of connectedness to a specific geographic area, be it physical, emotional, or spiritual (Relph, 1997). Developing a sense of place through physical experiences helps build the social and emotional foundation children need and will one day use as adults. A sense of place is when people desire to belong to a place or a city with which they are familiar. When people initially visit a place, there is a feeling of concern and enjoyment when they tend to explore their surroundings for the first time. Sense of place is determined by

personal experiences, social interactions, and identities. A sense of place is a unique collection of qualities and characteristics, visual, cultural, social, and environmental, providing meaning to a location. Sense of place makes one city or town different from another, but a sense of place also makes our physical surroundings worth caring about. Finally, a sense of place is the emotions someone attaches to an area based on their experiences.

The concept of sense of place is used in various ways. To some, it is a feeling or perception held by people and not by the place itself; it is a symbol that makes a place exclusive, a characteristic that some geographic places have and some do not. Sense of place is how people experience, express, imagine and know their place (Qazimi, 2014). Terms such as sense of place or attached to a place refer to the complex relationship between humans and their environment. This kind of relationship includes the impact of the natural environment on humans and the development that human activities have placed on the surrounding environment. Sense of place offers resource managers a way to identify and respond to the emotional and spiritual bonds people form with specific spaces. The concept allows managers to anticipate, identify, and respond to people's bonds with places (Williams & Stewart, 1998).

Space and place are different, but what makes them distinctive? In human design, space and place are essential concepts. Space is something abstract without any actual meaning. In comparison, place refers to how people are aware of and attracted to a particular space. A place can be seen as a space that has meaning. Sense of place, in architecture, is about context and the identity or unique characteristics of a building or space that creates meaning for an occupant. Sense of place is also defined as people's perceptions and experiences of an environment (Hummon, 1992). While space is location, place is used by humanistic geographers to describe our attachment to specific locations (Cresswell, 2003). First formalized by geographer Yi-Fu

Tuan in 1976, humanistic geography emphasizes the importance of human experience and meaning in understanding people's relationship with places and geographical environments. A sense of place equals a sense of belonging.

The character of place has many unique elements. Place character is conveyed by sets of unique features that give places unique identities. It is defined by combining individual elements and their experience over time. As Daniel Williams, research social scientist with the US Forest Service, and Susan Stewart, Department of Forest & Wildlife Ecology (1998, pp. 18-23) state: "A place perspective demonstrates that places are not just the sum of interchangeable attributes, but whole entities, valued in their entirety." It recognizes that resources are not only raw materials but are also, more importantly, places with histories, places people care about, places that, for many people, embody a sense of belonging and purpose and thus give meaning to life. Cultural geographers, anthropologists, sociologists, and urban planners study why certain places hold special meaning to particular people or animals. Places with a strong sense of place have a strong identity that residents and visitors deeply feel. Sense of place is a social phenomenon.

Sense of place is composed of two different aspects. The first aspect is a relationship to place, which consists of how people relate to places or types of bonds we have with places. The second aspect is community attachment, which consists of the depth and types of attachments to one particular place (Cross, 2001). What elements create a sense of place for an individual? Many elements, such as cultural, genetic, social, and the built environment, mix to shape identity. People start to identify themselves when the relationship between one person and a place grows. A well-thought-out landscaped university can, over the time a student stays there, help them develop their identity by cultivating a sense of place, which includes the character of the university.

Although having multiple definitions, a sense of place usually refers to the experience of a place, which is gained through attentiveness to and emotions towards the place (Relph, 1997). Relationships with places are also dynamic, developing along with the human identity (Manzo, 2003), having a time perspective from the past, memories, dreams, wishes, and worries (Kruger & Shannon, 2000). Place attachment, which has even been used as a synonym for a sense of place, describes people's positive emotional bond with a place. Irwin Altman, Dean of the College of Social and Behavioral Science & VP for Academic Affairs at the University of Utah (1992), and Setha M. Low, former president of the American Anthropological Association, professor in Environmental Psychology, and the director of the Public Space Research Group at the City University of New York (1992), suggested place attachment may arise, for example, from history and family, the loss or destruction of land or a community, ownership or inheritance, spiritual, or storytelling and naming of places. Place attachment is not always positive, as it might also include negative feelings (Manzo, 2003). An additional component of sense of place, place satisfaction, or what Richard C. Stedman, Professor, and Chair, Department of Natural Resources and Environment and Associate Director Cornell University, calls judgment of the perceived quality of a specific setting, is viewed as the practical value of a place to meet particular basic needs ranging from the sociability of services to physical characteristics (Stedman, 2002).

Research on sense of place, also referred to as place attachment, explores residents' identification with the natural landscape in their community. Although place attachment research typically refers to specific places or landscapes (Eisenhauer et al., 2000), the concept can explore the overall connection with the natural landscape that may occur in community attachment. Tuan (1977) suggested that space is transformed into place when humans assign some value to it.

Sense of place manifests as an emotional bond between an individual and a specific place. This bond may vary in intensity, from a short-term sensory pleasure to a long-term, deep-rooted attachment to a specific place (Williams & Stewart, 1998). According to Williams (1998, p. 32), “A place’s value is assigned by individuals, groups, or society without necessarily involving a strong correspondence between the physical attributes of the place and its meaning." This connection may be why prospective college students attend the same university as their siblings, parents, or grandparents. They have developed place attachment based on how a relative describes the place, giving it meaning and emotion.

Place dependence considers how well a setting serves goal achievement given an existing range of alternatives, i.e., how the setting is compared to another setting for what a person likes to do (Stokols & Shumaker, 1981). Thus, place dependence refers to connections explicitly based on activities in a setting, reflecting the importance of a place in providing conditions that support an intended use. Place dependence suggests a person becomes attached to a specific place because it meets their needs better than any alternative site (Clark & Stein, 2003). Place dependence is primarily an essence of function. Place identity involves those dimensions of self that define an individual's or community's identity concerning the physical environment utilizing a complex pattern of conscious and unconscious ideas, beliefs, preferences, feelings, values, goals and behavioral tendencies, and skills relevant to this environment, and how the physical setting provides meaning and purpose to life (Brown & Raymond, 2007). Place identity describes attachment to place in terms of emotional or symbolic meanings assigned by an individual. Place identity suggests that the physical landscape or place is one of many variables contributing to a person's self-identity (Warzecha & Lime, 2001). Unlike place dependence,

which requires that an individual use the resource, it is possible for individuals to develop a strong attachment to an area without ever visiting that area.

Classical theorists contend that it is place that creates humanity (Brandenburg & Carroll, 1995). According to Wendell Berry, an American novelist, poet, essayist, environmental activist, cultural critic, and farmer, if we do not know where we are, we do not know who we are (Stegner, 1992). Berry is talking about the knowing that involves the senses, the memory, and the history of a family or a tribe (Stegner, 1992). By knowing more about the places, people who have a better sense of whom they are, start paying attention to their impact on their lives. Recognizing that place and identity are related and that place and well-being cannot be disconnected should lead to taking better care of those places (Young, 2020). At least in human insight, a place is not a place until people have been born in it, have grown up in it, lived in it, known it, died in it, and have both experienced and shaped it as individuals, families, neighborhoods, and communities, over more than one generation. Some are born in their place, some find it, and some realize after long searching that the place they left is the one they have been searching for from the beginning. No place is a place until things that have happened in it are remembered in history, ballads, yarns, legends, or monuments (Stegner, 1992).

There are six types of place relationships: biographical, spiritual, ideological, narrative, commodified, and dependent. Many people are likely to have more than one relationship with a single place, and those relationships are likely to change over time. People have relationships with places as small as a favorite rock next to the river or as large as a geographical region (Cross, 2001). Biographical relationships, the strongest and most enduring relationships, are attachments based on personal history with a place. They are characterized by a strong sense of identification with place and a relatively long residence. Biographical relationships require time

to develop and are strongest in communities where one has spent more time. Spiritual relationships are much less tangible than a personal history, profoundly relating to place and having a deep sense of belonging, which is difficult to describe and often unexpected. These types of relationships are more of an intuitive connection than an emotional, cognitive, or material connection. People with spiritual relationships describe their connection as a profound sense of belonging, sometimes mystical and often intangible (Cross, 2001).

In contrast to spiritual relationships that happen and are not chosen, Romantic relationships are founded on conscious values and beliefs about how humans should relate to physical places. They are based on a well-articulated ideology about how to live in a place (Cross, 2001). Narrative relationships develop because we all grow up with stories of places that teach us about the history of that place and our relationship to it. Stories are essential to children's learning about their place or home (Cross, 2001). Commodified relationships are best defined by the characteristic of choice, the ability to choose a place with the best possible combination of required features. Commodified relationships have little or nothing to do with personal history. Because they are founded on choice and a list of desirable traits, commodified relationships typically result from dissatisfaction with one community and the quest to find a more desirable place. This relationship is based on the match between the attributes of a place and what a person thinks is an ideal place (Cross, 2001). Dependent relationships defining characteristics is also the aspect of choice but differently. Typically, these relationships result from having either no choice or severe limitations on choice, such as children who depend on their parents and do not have a choice about where they live, elderly who have moved to be near caretakers either in their own home or in some retirement facility; and people who have moved

for a job or to be with a romantic partner. Typically, not their first choice (Cross, 2001). The place, not the partner.

Various writers use place, place attachment, and sense of place to describe similar but not identical concepts. The emotional bonds humans form with places over time and with familiarity develop strongly felt values, meanings, and symbols that are hard to identify or know and hard to quantify, especially if one is an outsider or unfamiliar with the place (Relph, 1997). The valued qualities of a place that even an insider may only be consciously aware of once they are threatened or lost may be challenging to quantify. These bonds are formed by place meanings that are actively and continuously built and rebuilt within individual minds, shared cultures, and social practices (Williams & Stewart, 1998). Many of us have never stayed in one place long enough to learn it or have learned it only to leave it. In our displaced condition, we are not unlike the mythless man Carl Jung wrote about, who lives "like one uprooted, having no true link either with the past, or with the ancestral life which continues within him, or yet with contemporary human society. He lives a life of his own, sunk in a subjective mania of his devising, which he believes to be the newly discovered truth (Stegner, 1992, p. 4)."

Daniel Stokols, Research Professor and Chancellor's Professor Emeritus of Social Ecology in the Departments of Psychology and Social Behavior and Planning, Policy, and Design, and founding Dean of the School of Social Ecology at the University of California, Irvine, and Sally Shumaker, with Johns Hopkins University (1981), believed place bonding relates to an individual's distinct perceptions of a particular location or environment and significant feelings regarding the functions, emotions, or value of the location. Fritz Steele (1981), a worldwide scholar of physical settings and behavior change, defined place bonding as a process of experience accumulation. Once individuals have engaged in activities and

accumulated experiences in a given location, the location becomes a meaningful place (Tuan, 1977). Maria Giuliani, City University New York, and Roberta Feldman, School of Architecture, University of Illinois Chicago (1993) noted that the relations between individuals and places are based on comparative experiences and memories. In other words, individuals compare their experiences in a location with their earlier experiences in other locations. Scholars have even suggested that individuals can experience emotional bonding with locations they have never previously visited (Farnum et al., 2005).

Jennifer Farnum, College of Natural Resources, University of Idaho (2005), believed place contact was stronger on the psychological than the physical level. Studies also suggest people may associate strong emotions with a place through secondary sources rather than direct experience (Beckley et al., 2007). A well-formatted and updated university website can provide this same kind of experience. Other examples of this would be art and photographs. In art, sense of place refers to the narrative of a place. A sense of place is a unique collection of qualities and characteristics, visual, cultural, social, and environmental, that provide meaning to a location. In photography, photographs convey a sense of place and blend the physical characteristics of a scene, landscape, or object with the mysterious essence that emerges gradually and perhaps unconsciously inhabiting a place over time. A well-made photograph is the visual equivalent of a poem, evoking feelings and emotions.

What are significant places? Significant places are protected to keep their natural and cultural meanings. They are recognized for having significant value and historic evidential figures. It may be significant because of religious and cultural links or historical events near the location in the past. Why do people need significant places? Keeping certain places in a relatively unchanged state can provide people with a sense of connection to their past and the

heritage of their family, community, and culture. Personal experience of a place can alter the values, beliefs, and wisdom individuals usually share with their primary social group (Brandenburg & Carroll, 1995). Throughout history, people have used trees, forests, animals, and other elements of natural environments to symbolize spiritual values, beliefs, and lifeways (Schroeder, 2018). All of them combine to make an essential contribution to the quality of many people's lives.

The look and layout of most American communities have undergone rapid change in recent decades. Concern for sense of place has risen in proportion to mass culture and consumption spread through entertainment and retail giants. Globalization's social, technological, and economic forces have weakened local distinctiveness. With cheaper transportation and new information technologies, we experience more parts of the world through international trade, travel, and the media (Williams & Stewart, 1998). Ironically, those forces of homogenization have made place more important, not less (Harvey, 2020). What mainly was taken for granted, subconscious meanings of a place come to the surface and seem threatened by nearly every proposed change to the local landscape. Such plans express the sense of place defined by an outsider, the scientist, government official, corporate developer, or special interest groups and thus represent the power of the outsider over the locals (Williams & Stewart, 1998).

A person's community attachment consists of their experience in a particular setting and feelings about that place (Cross, 2001). The strongest type of community attachment is rootedness, which can be split into cohesive and divided. People with a sense of unified rootedness have a strong sense of attachment, identification, and involvement in one community. They generally positively assess the place and expect to continue living there. Those people with a divided rootedness think of themselves in terms of two communities. They have strong

attachments to two places and often have distinct identities associated with each place. Typically, these people have a strong attachment to the community in which they were raised and the community they lived in as adults (Cross, 2001). People who are often alienated negatively assess the place, do not identify with the place, and are not highly satisfied with the place. Some people are estranged from a place because they have been forced to move from where they were rooted to where they are not. Other people may be dissatisfied because the place they love and feel rooted in has changed around them (Cross, 2001).

Many people who fit into the relativity category have lived in so many places in their life they are not firmly rooted in any particular community. They are more likely to identify their sense of home with their house or the world more generally than in any particular community. Also, they are likely to identify with more than one place, such as bi-coastal people. They feel at home anywhere instead of in a specific place, and their identity is not strongly tied to their community of residence (Cross, 2001). Uncommitted or placelessness is characterized by a lack of place-based identification and emotional attachments to particular places. The main difference between relativity and placelessness is that in relativity, people have a mobile sense of home and can cultivate a sense of home wherever they are; in placelessness, people do not have an articulated or place-based sense of home (Cross, 2001). Placelessness is defined as the loss of uniqueness of a place. An example would be a road with popular stores that looks like it could be anywhere in the U.S. The malls in the U.S. have a sense of placelessness because they all appear to be carbon copies of each other.

If we look closely at the current definitions of place, what we see being defined is really landscape, an essential concept in itself, but one which must be distinguished from the concept of place. Gretel Ehrlich, American travel writer, poet, and essayist, defined landscape as the

following: “A landscape does not exist without an observer, without a human presence. The land exists, but the scape is a projection of human consciousness, an image received. We put a frame around a single view, and how we see and describe this spectacle represents our frame of mind, what we know, and what we seek to know. We need humans to give it meaning (Ehrlich, 1987, pp. 24-27).”

There has been considerable debate on the relationships between landscape, place, and sense of place. Landscape and place cannot be seen as opposites but rather as inseparable. As Pauli Karjalainen (1986, p. 141) has put it: "every place is a part of some landscape and, conversely, every landscape is part of someplace." Richard Stedman (2003) demonstrated that landscape qualities matter to sense of place and that landscape development changes the symbolic base of attachment without affecting the overall attachment. M. Harold Proshansky, an American social psychologist (1978), found the physical attributes of places to be essential for an individual's self-concept. Sense of place is expected to translate into harmony between people and nature and care for the place, thereby contributing to the aesthetic quality of the landscape (Relph, 1997).

Landscapes are not just natural environments, and recent research focuses on cultural and symbolic aspects of landscapes, architecture, and monuments (Arnold, 2009) and the placement of burials (Keegan, 2009). Places are not just backdropping to cultural activity (Rodning, 2010). Places are outcomes of that activity, shaping domestic and ritual life practices. It takes time to build places, live in them, and abandon them, just as it takes time to modify landscapes (Rodning, 2010). Some scholars believe individuals develop bonds with a place after long-term interaction with that place; others have suggested that individuals may bond emotionally with places they have never visited. Individual place bonding can be significantly enhanced by adding

familiar landscape elements into unknown places. The results suggest that individuals may form initial bonds to destinations they first visit based on their prior experiences with similar environments (Cheng & Kuo, 2015). Individuals seek emotional bonding between themselves and particular locations and render those locations unique. Place bonding refers to the particular identity and emotional attachment a user associates with an environment due to long-term interactions. Such bonding is a composite of factors such as emotional attachment, experiences, and meanings that individuals attribute to particular locations (Cheng & Kuo, 2015). More than 400 relevant articles have been published in 120 different journals over the last 40 years (Lewicka, 2011), including publications in the fields of environmental psychology, sociology, community development, human geography, anthropology, gerontology, urban planning, recreation, ecology, forestry, architecture, and economics. This phenomenon demonstrates the importance of this topic (Cheng & Kuo, 2015).

Clare Twigger-Ross and David Uzzell (1996) proposed place-congruent continuity, suggesting that individuals maintain location-related continuity by transferring the characteristics of a prior location to a new environment. Thus, individuals who relocate will begin searching for new places of residence that are similar to their old residences (Fried, 1963) and will decorate their new residences with old items (Chow & Healey, 2008) and attempt to incorporate the landscape elements of their previous residences into their new residences (Mayer, 2011). This practice is prevalent when people move from the north to the southern states to avoid the cold and bring plants and trees that will easily grow in the region they are from but will not grow in the new one and do not understand why. David Lowenthal (1978) proposed the concept of landscape attachment as early as 1978, and believed individuals may emotionally attach to a particular type of landscape rather than a particular place.

One of our deepest needs is for a sense of identity and belonging and a common denominator: human attachment to landscape and how we find individuality in landscape and place. The landscape is not simply what we see but a way of seeing. We see it with our eyes but interpret it with our minds and ascribe values to landscape for intangible, spiritual reasons. Landscape can be seen as a cultural concept in which our sense of place and memories become ingrained. The landscape is not simply a pretty picture or a static text; it is the expression of a landscape as a cultural process. The connections between landscape and identity, memory, thought, and comprehension is fundamental to understanding the landscape and the human sense of place (Taylor, 2008). However, the memory of the landscape is not always associated with pleasure. It can sometimes be associated with loss, pain, social fracture, and a sense of belonging gone, although the memory remains, albeit emotionally. These emotional attachments demonstrate the importance that landscapes cannot be considered decorative afterthoughts; they must be treated as significant pieces of our human lives.

To understand ourselves, we need to look thoughtfully at our landscapes, for they are a clue to culture, our everyday landscapes, not just the national icons. Images of the landscape are evident in a remarkable range of our creations: literature, poetry, paintings, ceramics, tapestries and weaving, myths, gardens, cultural activities, films, television documentaries, travel material, maps, and advertising (Taylor, 2008). We see and make landscapes due to our shared beliefs and ideologies. In this way, the landscape is a cultural concept, a mirror of our memories and myths programmed with meanings that can be read and interpreted. The 1990s saw a remarkable development of interest in and understanding of cultural landscapes. It also informed the concept that places or landscapes reflect everyday ways of life, the beliefs that compel people to create places, and the sequence or rhythm of life over time are significant. They tell the story of people,

events, and places through time, offering a sense of continuity and the stream of time. They also offer a cultural context setting for cultural heritage (Taylor, 2008).

In multiple ways, landscape identity has been used throughout scientific literature and policy documents. It can either refer to the landscape itself and the features that leave its differences or how people use the landscape to construct their individual or collective identity. However, it can always be understood as the relationship between landscape and people. People's identity is related to the human need to understand who we are. It includes personal characteristics and characteristics shared with others and characteristics from the surrounding landscape qualities (Ramos et al., 2016). By using the concept of identity, people define themselves as individuals and members of a group with some common characteristics. Identity is also a way to distinguish us from others or groups that do not share these characteristics and are thereby different. This process strengthens the identity and worsens into a source of discrimination and social conflict (Ramos et al., 2016). People can choose the identity that best responds to a specific situation. Sometimes more than one identity can be activated simultaneously; for example, a person can be European and male simultaneously. This shift in identity scales can be seen as a way to escape a negative identity (Ramos et al., 2016).

People are influenced by and interact with the landscape, which again creates conditions for new relations, influencing people's perceptions of it. This familiarity gives a sense of autobiographic and social insideness (Rowles, 1983), expressed by the emotional preference for a specific place (Proshansky, 1978). This intimate relation between natural and cultural factors is also a critical point in the definition of a landscape, as included in the European Landscape Convention. A landscape is an area perceived by people whose character results from the action and interaction of natural or human factors (Ramos et al., 2016). Landscape character is

described as “a distinct, recognizable and consistent pattern of elements in the landscape that makes one landscape different from another,” and “it is what makes each part of the landscape distinct and gives each its particular sense of place (Swanwick, 2002, p. 8)." The landscape's character makes the uniqueness of different areas so they can be seen as unique spatial entities with their own identity. This chronological approach focuses on the spatial pattern formed by the different landscape features and creates areas with a distinct identity (Ramos et al., 2016). An example would be designing the landscape for each college at a university based on the faculty and students' unique preferences associated with that school.

To cope with the complexity of landscape experience, researchers find it helpful to refer to two modes of landscape perception: space and place. An essential use of landscapes is a physical space for living and a place with meanings and contributions to societal identity (Hunziker et al., 2007). Landscape research consists not only of ecological research but also of social science research. The latter, often called human-dimension research, deals with the multi-faceted interrelationship between landscape and society or individuals. This social aspect of landscape research has become increasingly important in recent years and will become even more critical in the future (Hunziker et al., 2007). In the space approach, people perceive the landscape primarily in terms of their biological needs; they focus on the active use of the landscape. However, in the place approach, people perceive the landscape primarily through self-reflection, experiences, achievements, social integration, values, norms, symbols, and meanings (Hunziker et al., 2007). Thus, when individuals or groups become familiar with a particular space and link it with their cultural values, social meanings, and personal experiences, it becomes a place for them (Tuan, 1977). In other words, personal, social, and cultural processes

of appropriation superimpose a layer of meaning on space and thus transform it into place (Altman & Low, 1992).

Place research has focused on people's favorite or unique places and settings in the last decades, particularly those within their residential areas. Empirical studies have found that informal meeting places (Oldenburg, 1989), places symbolizing collective belonging, places used in childhood, places frequented during leisure activities, and natural settings outside of the closest residential area often have exceptionally high emotional significance to a local residential population (Hunziker et al., 2007). Robert Hay (1998) showed that as the amount of time spent in a place increases, the relationship with the place, particularly the attachment, intensifies and becomes more profound and comprehensive. However, Lynne Manzo (2003) emphasized that a more extended sense of place does not necessarily mean that the relationship has a better or more positive quality. Sense of place might also be connected with negative or ambivalent emotions.

According to Carl Graumann (1983), people's social identity is connected to place by the process of identification which unfolds in three steps: one - identifying one's environment, two - being identified by the others in the environment, and three - identifying oneself with one's environment or a part of it. Much attention has been given to the meanings people attach to places on the individual level and how it contributes to their identity. One of the reasons people give meaning to places is the need to discover and evolve their identity. Through place, people can experience reflection, introspection, and self-understanding. An individual's identity may contribute to many places and meanings (Manzo, 2003). Sometimes places act as essential indicators in people's lives. Places can acquire meaning through significant experiences such as trauma or loss and experiences of change and transition like moving or graduation. Places related to these experiences can become meaningful regardless of being negative or positive (Saar &

Palang, 2009). The way we experience time through the garden is central to its therapeutic effects. Gardening puts us in touch with the transience of life, but it also allows us to feel the continuity of life. This connection can be enormously consoling for people recovering from trauma and loss (Stuart-Smith, 2020).

Places can become meaningful to people because of their relations with other people, for instance, people living there, such as friends, acquaintances, or relatives. Individually, they act for us as connections with special times or occasions in our life. A place can remind us of a specific occasion or be a path indicator of our point back then. Places can also remind us of particular periods through nostalgia (Hay, 1998). Usually, childhood memories are an important example of how places became meaningful. Places are also used to awaken feelings like security, anchoring, comfort, self-expression, and freedom to be oneself (Saar & Palang, 2009). The possible negative side of place identity and attachment should be reviewed when discussing place attachment and meanings. Manzo (2003) has suggested that negative experiences of omission can shape emotional connections to places. The politics of belonging involves decisions about who belongs to the place and who does not.

A student's sense of place comes from a feeling of connectedness or belonging, physical, emotional, or spiritual, to a specific geographic area: hopefully, their university campus. This connectedness can be determined by the student's personal experiences, social interactions, and identities. Sense of place is a social phenomenon, whereas students can develop their identity through an emotional bond between themselves and their university campus. The bond they develop is a process of accumulating experience with the physical campus and the university's history. When interacting with the campus landscape, students see the landscape with their eyes but interpret it with their minds. How students interpret the landscape depends on their culture,

history, and experiences with similar landscapes, either positive or negative. When visitors are on campus, they can be seen taking pictures of the new student and their families in some pose, but always with the campus landscape in the background. Every time they look at that picture, it will remind them of the campus and further strengthen their sense of place with their university.

Additional research may include urban communities wishing to know how rural dwellers adjust to moving to an urban setting. If a city wants to hold onto its young citizens, it can harness and promote a sense of place if we know more about what place is. The military may wish to know how soldiers adjust to a place, even a hostile place. How do people displaced by severe weather, earthquakes, war, or famine adjust to a new and unfamiliar place? Another important area is the sense of place in a technological environment. With the increase in the use of technology in education, online learning, and the development of virtual reality, questions arise related to place. Can online learners experience a sense of place in a virtual environment? What are the challenges surrounding online learners and their ability to enhance their skill of acquiring a sense of place while in a remote location (Sauerwein 2017)?

Further studies on sense of place, especially on college campuses or other venues where shorter-term relationships are the norm, could be beneficial. Many factors could be incorporated in another look at the connection to a college in a rural environment versus an urban one. While there are all kinds of colleges, being urban is just one way to view the landscape. Looking at rural colleges from the standpoint of students with an agrarian background, an international background, or a nontraditional student's point of view may help those students develop a new sense of place. Another study that could be useful would be to explore the possible connection between place attachment and student success. This information could go a long way to understanding if developing a sense of place is a possible tool for colleges to employ in assisting

students. If universities and colleges can help speed up the process of developing a sense of place, it could be helpful not only for student retention but also for the long-term success of their students (Sauerwein, 2017) .

Restorative Environments

Nature has been shown to provide humans a place to relax and unwind from their daily stresses and allows them to restore their energy and creative juices. If nature has this type of power, what roles do university landscapes play in doing the same for college students? Even though campus landscapes do not directly replace our natural environment, they can represent parts and pieces to those who choose to enjoy the landscapes for what they are: a place to de-stress and to re-focus. Campus landscapes cannot be everything to everyone, but they can be very special to many people who visit, work, and live on campus. Those who choose to enjoy the landscape do not necessarily know why they feel more peaceful but the fact that they are relaxed and less stressed is enough for them to be better students, which should be an important goal of the campus landscape.

Wellness is a hot topic and a key priority on many campuses. Much of this is a response to the surprising numbers of students who, according to the American College Health Association 2019 study, reported that anxiety (27.8%), depression (20%), sleep difficulties (22.4%), and stress (34.2%) have affected their academic performance in the last year.

Affected Academic Performance	Percentages
Anxiety	27.8%
Depression	20.0%
Sleep Difficulties	22.4%
Stress	34.2%

Landscapes are the perfect candidate to alleviate these issues. Nature has inherent benefits for supporting the physiological and psychological needs of students, faculty, and staff. Integrating

landscape and building design more holistically can reveal imaginative opportunities to provide relief and an environment for interaction away from technology on campus (Brooke, 2019).

Landscape elements have restorative effects, which is why spaces like healing gardens exist. When students are exposed to high levels of stress and competitiveness, bringing the benefits of greenery, plants, and water to promote healthy campus life is always a good idea (Kudela & Weinheimer, 2016). There is growing evidence to suggest that exposure to natural environments can be associated with mental health benefits. Proximity to green space has been associated with lower levels of stress (Thompson et al., 2012) and reduced symptomology for grief and worry (Beyer et al., 2014), while interacting with nature can improve cognition for students with attention deficits (Taylor & Kuo, 2009) and individuals suffering from depression (Berman et al., 2008).

According to Attention Restoration Theory, directed attention is voluntary, central to maintaining focus, controls distractions through inhibitory mechanisms, and requires effort (Kaplan, 2001; Kaplan & Kaplan, 1989). Directed attention is susceptible to fatigue and becomes less effective with sustained use, leading to reduced ability to focus attention, increased performance errors, and increased irritability. When directed attention exhaustion occurs in response to intense and sustained mental effort, individuals experience mental fatigue. University students spend a great deal of time studying, reading course material, completing homework, working on reports and projects, preparing presentations, taking exams, and engaging in other activities that require sustained, directed attention. As a result, college students may frequently experience mental fatigue (Kaplan, 2001; Tennessen & Cimprich, 1995). The effects of that fatigue may reduce the efficacy of their scholarly efforts and lead to lower academic achievement (Felsten, 2009).

Because many activities that lead to mental fatigue in college students occur on campus, it could benefit students if there were campus settings that provide restoration breaks and allow them to return to their work mentally refreshed. Although many colleges have considerable green space, there is significant variation between campuses in access to, amount of, and restorative qualities of their outdoor settings. Even on campuses with green spaces, many buildings are large and have interior spaces with limited or no views of the outdoors. Green spaces at colleges and universities tend to provide popular hangouts throughout students' days. They could be studying, reading books, eating lunch, kicking a ball, or even hanging out (Hohman, 2022). Think about these gathering areas like outdoor living rooms. As students go from class to class, there is always some downtime in between. Having a place to unwind or finish some tasks before the next class gives students that extra something special to round out their busy school days. Furthermore, the restorative properties of nature can change with the seasons. For example, in northern climates, cold weather may limit access to nature during the winter, flowers are absent, grass may be brown, and trees lack leaves to block views of buildings and parking lots. Students are less likely to spend time outdoors on campus during this period, and contact with and views of the outdoors may be less restorative than during warmer months (Felsten, 2009).

Researchers reported that viewing nature through windows promoted attention restoration. Carolyn M. Tennessen of Cornell University and Bernadine Cimprich of the University of Michigan (1995) found that college students who had views of only natural elements through their dormitory windows performed better on tests of directed attention than students who had partly natural or entirely built views. Kaplan (2001) found that apartment residents with views of nature from their windows felt more effective, more relaxed, and less distracted than residents with no views of nature. These authors suggested that residents with

window views of nature had opportunities for restorative experiences through indirect contact with nature, which is not available to residents without such views. College students who pictured themselves as attentionally fatigued rated nature settings more restorative than sports or entertainment settings, which were rated more restorative than urban settings (Herzog et al., 1997).

As humans increasingly populate urbanized areas, they are spending less and less time in natural environments, perhaps to the detriment of their health (Akst, 2019). This trend has potentially severe implications for health if exposure to natural environments is fundamental to short-term recovery from stress or mental fatigue and overall long-term improvements in health and well-being (Pearson & Craig, 2014). The landscape is one of the most cost-effective tools for improving and sustaining the quality of the environment, whether at school, the city, the suburbs, or the country (Elf, 1996). Through gardens and landscapes, an individual can acquire a personal awareness and responsibilities for the environment while relieving everyday life's tensions and frustrations (Adekunle & Basorun, 2016). Thoughtful campus planning can be essential in creating stimulating environments that promote learning and collaboration (Williams, 2018). Most companies hire new graduates who work well with others in the modern job market, increasing pressure on colleges to provide collaborative experiences. True collaboration is not limited to the classroom (Williams, 2018).

The restorative environment is an environment that is desirable and is subject to the following conditions: it can be understood and comprehended, is discoverable, is relaxing and enjoyable, provides the possibility of public participation, and is compatible with human desires (Ghorbanzadeh, 2019). Restorative environments also positively affect our ability to focus our attention after a long, cognitively demanding day and have an abundance of microorganisms that

appear to boost immune function (Akst, 2019). According to recent research, physically being in a natural environment promotes cognitive performance and offers higher stress resistance because of exposure to a bacterium called *Mycobacterium vaccae.* In the brains of mice, and thus likely in humans, this bacterium leads to a higher release of the neurotransmitter serotonin (Chowdhury, 2014). Serotonin plays a role in maintaining a positive mood and protecting against depression. The mice, which received exposure to the bacterium in a laboratory environment, learned mazes faster and exhibited fewer nervous behaviors than mice without *Mycobacterium* exposure. These findings constitute a biological fact: being in nature alters the human brain in a way that makes us feel better (Chowdhury, 2014).

University students' frequent visits to green spaces can improve their overall mood and reduce perceived stress (Holt et al., 2019). Therefore, universities are encouraged to provide an environment for study and promote physical and mental health (Lu et al., 2019). Students appreciate green spaces and consider them essential for the university's image and a stimulating campus environment. The aesthetic qualities of the campus and its design and management style influence opinions and use of its green spaces, with formal, manicured gardens and lawns being much preferred over more natural areas (Speake et al., 2013).

Psychophysiological theories of stress reduction have shown that being in a non-threatening natural environment reduces the physical indicators connected with stress, such as blood pressure, heart rate, serum cortisol, and skin conductance which is the method of measuring the electrical conductance of the skin, which varies with its moisture level. In these works, stress is usually defined as how individuals respond physiologically, psychologically, and often behaviorally to situations that challenge or threaten their well-being (Ulrich et al., 1991). In education settings, recent studies have described a restorative effect connected with direct or

indirect exposure to trees and other forms of vegetation on students across age groups (Li & Sullivan, 2015). Perhaps surprisingly or not, academics know very little of the environments where they and their students spend so much time. There have been few studies on how students encounter, perceive, evaluate, and use campus green spaces in their everyday lives (Speake et al., 2013).

Future studies could examine how physical exposure to green spaces affects students' stress and attentional functioning. Upcoming research might measure the combined impact of green views and immersive green experiences, such as exercising on the campus grounds and student performance. Most high schools in the US have breaks of 10 min or less; hoping this length of green views is long enough to impact student attention and stress reduction. Would a more extended break show a more significant effect on stress recovery? Would increasing the frequency of breaks also show an effect? What effect does the interaction between the duration and frequency of breaks with a green view have on students' stress recovery and attention restoration? It is also possible that the relationship between green views and stress recovery is dynamic. In the first few minutes of a green view, stress recovery may be slow, but over time, recovery may speed up. The green view is a promising area for future research directly testing the mediation effect of attention and stress on academic performance.

Influence of Urban Green Spaces

Urban green space can significantly contribute to people's overall well-being and quality of life as part of their everyday experiences (Bell et al., 2008). Research has shown green space to have restorative effects, reducing stress and mental fatigue, enhancing people's moods, and helping to prevent depression (Van den Berg et al., 2007). The relevance of these benefits is increasing due to growing urbanization and its negative impact on mental health (Lederbogen et

al., 2011). Nevertheless, while it is generally recognized that urban green space has significant restorative potential for urban residents, relatively little is known about planning, designing, and managing urban green spaces to maximize their restorative impact. Most research on therapeutic environments has compared one type of natural setting against one built setting (Velarde et al., 2007).

Two main theoretical frameworks have guided research on the restorative potential of different green space options: Stress Recovery Theory (SRT) (Ulrich et al., 1991; Ulrich, 1983) and Attention Restoration Theory (ART) (Kaplan & Kaplan, 1989; Kaplan, 1995). Although both theories share common features, SRT has focused primarily on the visual properties of green spaces that support affective and physiological recovery from acute stress or the depletion of emotional resources. In contrast, ART has focused on the components of people-environment interactions that promote attentional restoration from mental fatigue or the depletion of cognitive resources (Van den Berg et al., 2014). These theories suggest that stress control is vital in maintaining good health and preventing stress-related diseases in urbanized societies. However, the current healthcare practices are costly and often focus on treating stress-related illnesses instead of preventing them (Tyrvainen et al., 2013). There is also increasing interest in studying whether green spaces may assist in preventing illnesses that are mediated by psychological processes, such as stress, and in curing stress-related diseases, such as burnout and depression (Tyrvainen et al., 2013).

People subjected to urban environments are forced to use their attention to overcome the effects of constant stimulation, which, over time, induces cognitive fatigue. In contrast, students benefit from natural environments due to Kaplan's term soft fascination, which refers to scene content that automatically captures attention while eliciting pleasure feelings (Kaplan et al.,

1998). Other vital features of restorative environments identified by ART include the experience of being away, in which a person feels a sense of escape from the stressful demands of daily life, and the extent to which perception of vastness and connectedness in an environment helps promote related experiences of being away (Pearson & Craig, 2014).

ART states that a natural environment offers a setting to restore our directed attention. Directed attention is the conscious attention we need for cognitive tasks, and this cognitive focus can become fatigued after prolonged mental activity. Most people live a relatively hectic lifestyle in a human-made environment filled with social and professional demands. Green space offers an entirely different setting, which gently distracts us from the stresses of civilized life. This action is when undirected attention, or the subconscious, can take over, which means nature recharges our mental batteries. ART focuses on explaining how green space improves cognitive performance but indirectly explains how nature reduces stress and improves mood (Chowdhury, 2014).

Restoring attention through environmental exposure is effective (Hipp et al., 2016). After a short exposure to green space, the cognitive capacity to focus attention is renewed because contact with nature enhances the inhibitory mechanism on which directed attention depends (Kaplan et al., 1998; Kaplan, 1995). Exposure to green spaces has been found to restore the cognitive resources supporting executive functioning and self-regulation (Kaplan & Berman, 2010) and is critical to learning (Li & Sullivan, 2015). Continued focus on studying behind the desk will tire the mind, leading to distraction, boredom, mental impairment, and reduced performance (Ghorbanzadeh, 2019). Studies have repeatedly shown that students who report lower personal and school-related stress attain higher grade point averages (GPA) (Gillock & Reyes, 1999), show more academic achievement (Grannis, 1992), and are less likely to engage in

behaviors that lead to lower performance, such as absence, and dropping out of school (Hess & Copeland, 2001).

SRT's central idea is that humans more quickly and deeply recover from stress near safe, natural elements and settings than near unthreatening urban environments (Joye & Van den Berg, 2001). Ulrich's theory focuses on decreasing physiological and psychological stress and contends that contact with nature rapidly improves emotions. Positive emotions bring about positive motives, physiological equilibrium, behavioral impulses, and adaptive behaviors (Han, 2017). Adding green spaces can induce positively valued changes in cognition and emotion, which may impact stress levels, health, and well-being (Grinde & Patil, 2009). Improved moods and reduced stress are the most reliable benefits of green space contact across research studies, regardless of whether they are controlled laboratory experiments or field studies. Benefits are found in multiple settings, cultures, and ages, from early childhood to late adulthood (Heerwagen, 2009). Furthermore, contact with nature can be active engagement, such as walking, running, gardening, or passive, like bird watching.

Exposure to green spaces enhances our capacity to recover from stressful events. Some types of green spaces have calming effects on people who have experienced stress. SRT suggests landscapes containing vegetation, water, modest depth, and complexity would have been beneficial to human survival for hundreds of thousands of generations because such settings provided resources and the capacity to anticipate the arrival of predators. Such landscapes help moderate and reduce arousal and negative thoughts and thus reduce stress's physiological and psychological symptoms (Ulrich, 1983). Various studies have demonstrated that managed green landscapes such as urban parks, community streets planted with mature trees, and university campuses are associated with reduced blood pressure, lower levels of the stress hormone cortisol,

a decrease in self-reported stress, and increases in a positive mood. Further studies related to the size of these settings might shed some light on the importance or unimportance of size versus amenities.

Connection Through Landscapes

Landscaping is the art of designing, planning, and managing land, an arrangement of natural and artificial elements, through applying cultural and scientific knowledge concerning resource conservation. The resultant environment can serve a helpful, healthy, and enjoyable purpose (Garrett, 1964). Landscapes deal with beautifying and managing the environment by organizing spaces with adequate awareness of the basic principles of design. Landscaping is a vital part of our culture by playing an essential role in the quality of our environment, the economic well-being of the people, as well as their physical and psychological health (Adekunle & Basorun, 2016).

Landscapes have always been the glue, critical to connecting places on a traditional campus. However, just as the nature of what constitutes a traditional student is more complex than it once was, what constitutes a traditional campus has also changed in recent years. Technology, online courses, lifelong learning, industry partnerships, and a shift towards problem-based curricula have blurred city and campus boundaries. Today's students can go to school online and earn degrees from the comfort of their couches. Campuses are more decentralized than ever before. Students can learn anytime, anywhere, creating a vast educational environment that can sometimes be challenging to navigate (Brooke, 2019).

Creating a communal place that is neither home, dormitory, or apartment nor work, classrooms, or libraries, a place that encourages responsiveness and offers opportunities for academic and social networking, is especially important. Often, these communal places take the

form of green spaces, common areas, or dining halls. Such locations foster opportunities for community building and encourage shareable moments that can become lifelong memories for students (Williams, 2018). Blake Gumprecht (2007), an American geographer, educator, and writer, asserts that university campuses may be seen as places apart from the wider world and designed to mimic nature and be beautiful and uplifting. Such landscapes can become an integral part of the identity of local communities. They provide a strong sense of belonging to our campus for residents and regular visitors. Buildings without landscape look unfinished and drab, leaving a ghost town feeling.

The concept of processual theory considers landscape to be a social product. The perceiver plays a vital role in determining landscape through their collective history, personal stories, and, in short, cultural background. Humans are naturally inclined to approach and respond to landscapes in specific ways. Our personal context, backgrounds, interests, and preferences inform our perceptions and interpretations of landscapes. Perception is the key to explaining the casual relationship between us and our landscape. Humans construct and manage landscapes and look at them, making decisions based on what they see, know, and feel (Nassauer, 1995). The perception of a landscape assumes a pivotal role (Menatti & da Rocha, 2016), but visual and perceptual functions rely on what is being created in the viewer's memory (Ghorbanzadeh, 2019).

The campus green spaces and public areas are essential in defining the university and creating unforgettable first impressions of the campus environment and experience. The green spaces and streetscapes on the campus should represent historic status that constitutes attractive spaces that signify campus identity, reflect the quality of the campus environment, and draw attention to the campus as a unique and distinct institution. With careful consideration of the

campus design, functionality, and materials, a lasting and impressive experience of the campus's public realm is established. The entire campus environment becomes a historic space with gateways and associated academic, residential, commercial, and celebratory uses. Hence, the overall landscaping reinforces the campus's vision in its park setting and defines the character of the various green spaces (Adekunle & Basorun, 2016). When a university is well-managed and has eye-catching landscaping, it can raise the school's interest level and create an environment that more students will experience. However, curb appeal is only one of many motivating factors behind an attractive landscape (Presley, 2017).

The importance of a campus landscape includes many things. However, the most important are the social and cultural, such as spiritual renewal, cultural values, historical linkages, and sense of place and identity. Recent studies examining students' exposure to nature found that the amount of vegetation on and surrounding campus significantly predicted school-wide student performance, such as standardized test scores and graduation rates (Matsuoka, 2010; Wu et al., 2014). The importance of campus green spaces for students shows that a university campus needs multiple forms of green spaces to satisfy the requirements of a variety of student users (Speake et al., 2013).

Along with being aesthetically pleasing, studies have shown that a school's well-managed landscapes can improve grades, attract enrollees, and help improve a campus's safety (Presley, 2017). Safety is the freedom from the occurrence or risk of injury, danger, or loss and is always a top concern on college and university campuses. Parents send their children out of the nest for the first time to live away from home and rest assured, safety is an important aspect expected by parents (Kudela & Weinheimer, 2016). Managing quality landscapes can help keep campuses safer by regularly pruning shrubs and plants; it reduces the possibility of overgrowth and

obstructing vision. Studies performed at the University of Michigan have shown that when safe and engaging landscapes surround students, it helps their mental health and scholastic performance (Presley, 2017).

There are many reasons a thoughtful landscape design is a must-have on our university campus (Kudela & Weinheimer, 2016). The landscape of buildings defines an excellent first impression, and establishing a standard planting palette helps unite a large campus. The landscape gives a building a sense of place, belonging, and hospitality, and outdoor landscape designs can be used as exterior classrooms, learning centers, dining areas, study areas, and more. Good campus landscape design and connectivity between facilities are easy to navigate, budget-friendly to manage, and provide an outdoor sense of place for students and faculty. Green spaces can be designed to foster outdoor activity and provide appealing views from the windows of classrooms and offices, raising student and faculty satisfaction. Landscaping can provide water and energy savings if done correctly with native and drought-tolerant plants and hide unattractive features such as above-ground utilities. Living within aesthetically pleasing and culturally meaningful landscapes enhances our well-being and quality of life.

Human beings live embedded in the landscape and perceive it through their whole body; it affects their well-being (Menatti & da Rocha, 2016). Being in nature has the most substantial effect, which makes sense. Since vegetation absorbs carbon from the air, students can breathe cleaner air. Green spaces also help reduce noise from neighboring cities, providing ample opportunities for students to engage in physical activities. These attributes help students relieve stress, relax, and get much-needed outdoor time. Being outdoors promotes making important connections with other students, leading to possible long-term relationships and developing connections with their university helping to establish that all to important sense of place which

keeps them coming back year after year. Additional studies regarding the length of time spent outdoors might assist in developing recommendations for the best amount of time needed for optimal stress reduction and student success.

Student Retention

In today's higher education setting, meeting admissions goals and improving student retention rates are critical objectives for most colleges (Williams, 2018). Student retention is one of the most widely studied areas in higher education, with a heightened focus on institutions and states alike on increasing the rate at which students persist and graduate from two- and four-year colleges and universities. Retention rates receive attention because of the cost of recruiting replacement students and the lost revenue (Sauerwein, 2017). Not surprisingly, there has also been a parallel increase in the number of businesses and consulting firms that have sprung up, each of which claims the rare capacity to help institutions increase the retention of their students. It would not be an understatement to say that student retention has become a big business for researchers, educators, and entrepreneurs. Many consulting firms promote their ability to increase institutional retention rates. Each seems to have discovered the secret to student retention. Nevertheless, substantial gains in student retention have been hard to come by. Though some institutions have considerably improved the rate at which their students graduate, many have not (Tinto, 2006).

When the issue of student retention first appeared on the higher educational radar screen some 40 years ago, student attrition was typically viewed through the lens of psychology. Student retention, or the lack thereof, was seen as the reflection of individual attributes, skills, and motivation. Students who did not stay were considered less able, less motivated, and less

willing to accept the benefits that college graduation was believed to bestow. Students failed, not institutions. This thought is called blaming the victim (Tinto, 2006).

Increasing student retention matters more now than ever. Many states now use some measure of institutional retention or graduation rates in their accountability programs for state-sponsored or supported institutions. Several organizations and at least one well-known news magazine now rank institutions and, in some cases states, by some measure of retention (Tinto, 2006). Even the Federal government uses institutional retention rates in a national higher education accountability system. Unfortunately, most institutions still need to translate what is known about student retention into forms of action that could have led to substantial gains in student retention and graduation (Carey, 2005a, 2005b).

Retention and graduation rates have become vital components of measuring the performance of higher education institutions in recent years. The most common strategies to improve retention and graduation rates are financial and academic, such as revising the financial aid criteria, investing in academic and advisory services, and revising curricula and programs. However, sometimes it must be remembered that a valuable asset for student success can be the physical campus and its surroundings. Motivational and psycho-social issues might be as important as financial and academic issues (Hajrasouliha, 2019). A supportive physical learning environment can enrich students' college experience, contribute to a sense of belonging, and respond to their social and emotional needs (Kenney et al., 2005). Landscapes bring us into the present and have an intrinsic future orientation. The positive anticipation we can feel in working with the natural growth force brings a sense of purpose and motivation. There are many times when this can be extremely helpful. Landscape gardens pull us in and get us going (Stuart-Smith, 2020).

The management of enrollment is a significant challenge with potentially dire consequences if not done well at tuition-dependent colleges. Suppose connections between a student and a place are proved important to students continuing to achieve a degree and, more broadly, to cohorts being retained. In that case, administrators can utilize sense of place to affect persistence. Small colleges can also succeed with more remarkable persistence, retention, and student success (Sauerwein, 2017).

The rate of student departure in colleges and universities poses a puzzle to scholars and practitioners. Given the widespread availability of guides on selecting colleges and universities and the enormous amount of attention parents, students, and college officials focus on the college selection process, students might be expected to select the right college or university for themselves. Consequently, it would be expected that the rate of departure to be meager. Thus, it is puzzling that almost one-half of students entering two-year colleges and more than one-fourth of students entering four-year collegiate institutions depart these institutions at the end of their first year (Tinto, 1993). The rate of first-year departure from highly selective colleges and universities is even more puzzling, as such institutions experience an average first-year departure rate of eight percent (Tinto, 1993). This rate is astonishing given the emergence of what Patricia M. McDonough, Assistant Professor of Higher Education at the University of California, Los Angeles (1994), calls admissions management by parents and students who seek admission to highly selective colleges and universities. Further, it might help colleges teach students how to connect with their place, which may be necessary for student development or, more broadly, for human development. Teaching students how to develop a sense of place is a process that could best begin at orientation (Sauerwein, 2017). Leaving is not the mirror image of staying. Knowing

why students leave does not tell us, at least not directly, why students persist. More importantly, it does not tell institutions what they can do to help students stay and succeed (Tinto, 2006).

Why Students Drop Out

People assumed the student population was the least affected by stress or problems for the longest time. Stress is now understood as a lifestyle crisis (Masih & Gulrez, 2006), affecting individuals regardless of their developmental stage (Banerjee & Chatterjee, 2012). Stress is a normal part of college life. It is the first time many students are away from home and responsible for doing well academically. Some may think college students do not experience much stress, thinking all a student must do is show up for class, pass some tests, and graduate, which is far from the truth. Stress among college students can be overwhelming and affect many areas of a student's life. A little stress is good, as it motivates students to overcome challenges. However, too much stress can negatively impact a student's mind and body, resulting in various physical and mental health issues (Harvey, 2020).

Scientifically, stress is characterized by a biological and psychological response to challenging situations we encounter in our lives. We have all experienced that feeling of anxiety, that sense of an impending deadline that causes our thinking to narrow and our heart rate to increase. Stress is a stimulus that threatens a person's life originating from the individual's internal environment. It responds to our external environment, which affects physiological, emotional, and cognitive body functions (Hussien & Hussien, 2006).

Research results indicated that the highest group of stressors experienced by students was self-imposed stressors followed by pressure; cognitive responses were the highest responses to these stressors (Thawabieh & Qaisy, 2012). There are three types of stress: acute, chronic, and episodic. Acute stress is typically what we think of when we think of stress or stressful

situations. Acute stress happens when we are in a demanding situation, such as the day before an important paper is due or during final exam week. Small doses can help us focus and push through to the other side, where our stress will be relieved. Chronic stress is the kind of stress we all worry about having. While people with acute stress feel it in relatively short bursts, and that feeling can help them focus on an issue or work hard on a challenging problem, chronic stress grinds down on people with problems that have no quick endings. If unresolved, chronic stress can lead to death through suicide, heart attack, or other illnesses. Chronic stress might be experienced by a student who faces financial problems in school with no natural end in sight. Episodic stress is similar to acute stress but crops up in response to particularly tense situations. However, unlike people who suffer from acute stress, those who feel episodic stress face these stressful situations frequently, running into one episode of stress after another. While someone who periodically faces a difficult academic challenge might be said to experience acute stress, someone who is constantly putting off assignments to the last minute or consistently failing to study for tests will probably experience episodic stress.

The 2015 American College Health Association-National College Health Assessment found that 85.6% of students had felt overwhelmed in the past year. The pressures of getting top grades, balancing extracurricular activities with studying, and spending time with family add up. Also, students manage another identity in the digital world. Social media platforms are one more thing to keep up with and are often loaded with stress-inducing comparisons, gossip, and bullying (Carlson, 2016). Attending a university is supposed to be a very challenging experience that could change the life course for students, providing absolute satisfaction. However, many studies (Tinto, 2006; Martin et al., 1999; Ackermann & Morrow, 2007; Chang et al., 2007) indicate that many students are unable to fulfill their obligations and complete their studies.

Vincent Tinto, a Distinguished University Professor at Syracuse University of Sociology, developed a 1996 study showing that 40% of all four-year students from America failed to earn a degree and a substantial proportion, 57% from dropouts, left at the start of their second year. The first year is the most critical for college adaptation because of the many possible adjustment difficulties it can generate (Clinciu, 2013).

The transition of students from a high school environment to a university environment could cause psychological, academic, and social shock since this educational system has vast differences: the student will face new methods of teaching, new academic requirements, a new type of relations between students and faculties and even new relations among students themselves (Thawabieh & Qaisy, 2012). Sometimes stress can be a good thing; it helps us focus and get things done under pressure. However, if we are stressed too often, biological responses start taxing our bodies. Meanwhile, chronic stress can make us more vulnerable to psychological conditions such as behavioral disorders (Thawabieh & Qaisy, 2012).

When we think of college life, we think of the most significant years of our lives. However, we tend to ignore that it is also a time of stressful experiences and a wide range of mental health challenges (Marquis, 2021). The key to ensuring that students get the best experience out of their college education is to understand the kinds of stress they might face in college, their causes, and stress management strategies to make themselves more comfortable and at ease. Although reducing stress is a goal for many individuals, stress can hinder or motivate performance. The direction of its effect depends on the perception of the individual. When stress is perceived negatively or becomes excessive, it may become linked to physical and mental illness. The university education process evaluates the student constantly and causes a re-evaluation of the self-image. As the term progresses, stress rises with every paper and

examination. Stress can affect both health and academic performance. Among other health risks, it may result in increased blood pressure, a stress-related condition leading to an elevated risk of disease (Lesko & Summerfield, 1989).

A disturbing trend in college student health is the reported increase in student stress nationwide (Sax, 1997). To avoid damage from stress, people learn to deal with the pressures they experience. University students often attempt to control their stress through avoidance, adversely affecting their emotional and physical health (Blake & Vandiver, 1988). Stress has become part of student's academic life due to the various internal and external expectations placed upon their shoulders. Teenagers are particularly vulnerable to the problems associated with academic stress as transitions occur at an individual and social level (Reddy et al., 2018). Stressors affecting students can be categorized as academic, financial, time, health-related, and self-imposed (Goodman, 1993; LeRoy, 1988). Some everyday stressors reported in an academic setting include excessive assignments, poor time management, poor social skills, and peer competition (Fairbrother & Warn, 2003). Given these multiple sources of distress, some people will feel overwhelmed at some point. When we mix academics, culture shock, homesickness, and social life, it all becomes too much for some students (Marquis, 2021).

There are many ways to combat stress, from counseling to medications, but one method is often left out, connecting with nature, and the easiest way for college students to be in nature is through a thoughtful and well-planned landscape. Student experiences on university campuses are at least four years in duration, away from their home environment, and filled with intentional, structured, unstructured, and work-related encounters with their campus that can cause or alleviate short, and long-term stress. Nature experiences have been established as helpful in restoring stress, reducing attentional fatigue, and enhancing cognitive functioning. With many

kinds of environments found or included on university campuses, various cumulative opportunities for restoration may exist in the form of their campus nature.

Causes of Student Stress

The educational system plays an enabling role, leading to increased stress levels experienced by students (Reddy et al., 2018). Parents and institutions relentlessly instill the fear of failure, which affects their self-esteem and confidence. Rebecca P. Ang, Division of Psychology, School of Humanities and Social Sciences, Nanyang Technological University, and Vivien S. Huan, Psychological Studies Academic Group, Nanyang Technological University (2006) reported increased expectations as one of the factors responsible for increased stress levels. Other individual-specific factors include problems in financial management, changes in the living atmosphere, and difficulties managing personal and academic life (Byron et al., 2008; Chernomas & Shapiro, 2013; Jimenez et al., 2010; Moscaritolo, 2009). Meaningful life changes, such as a death in a family, moving to an unfamiliar location, or divorce, are likely to cause high spikes in stress. Short-term academic stress is very high during the first semester on campus (Pitt et al., 2017) and impacts subjective well-being (Yovita & Asih, 2018). New undergraduate students are also considered emerging adults who may already be experiencing long-term stress dealing with the transition to adulthood (Arnett et al., 2014).

International Students

Although many international students complete their studies without apparent difficulty, many others experience significant problems in adjusting to life in the United States, including difficulty with English language proficiency, insufficient financial resources, social integration, problems in daily life tasks, homesickness, and role conflicts (Pederson, 1991). These problems may be manifested as social withdrawal, inability to sleep well, sexual problems, depression,

academic problems, loss of self-esteem, and loneliness (Marion, 1986). When students enter another culture, they are often deprived of traditional sources of social support and familiar means of communication (Pederson, 1991). Not only is social support crucial for positive well-being, but it also provides a powerful coping resource for persons experiencing stressful life changes, including the stress of adjusting to an unfamiliar culture. Social support is believed to have both direct effects on psychological adjustment and buffering effects on the impact of life stresses (Mallinckrodt & Leong, 1992).

Financial Stress

Every student has concerns about money. Students worry about paying for classes, repaying loans, and paying for housing and essentials while living on very little income, even those students who have parents covering the total cost of college stress over money. Students graduate from college with a loan debt of $25,000 to $125,000 or much more. Many work part-time while in college to help pay for classes, books, and living. Working part-time takes away from the time needed to study. Financial debt can lead to stress about what type of job they can land post-college (Harvey, 2020). Let us face it; college is not cheap, with each following year getting more expensive, whether students attend a community college or a private one. If the cost of tuition, books, room, and board are added up, it can be staggering. Without a full-ride scholarship, college can be a financial burden. It is not unusual for students to take part-time jobs to augment their college expenses (Marquis, 2021).

Financial stress makes everything else harder. Suppose anyone has ever experienced financial worries, whether it was anxiety about their next rent payment or questioning where their next meal would come from. In that case, they know how easily those issues can become the only thing on their mind. Money worries lead to ongoing stress; they crowd out the brain's

ability to focus on long-term goals; they even lead to higher-risk decision-making with potentially disastrous consequences. Dropping out is a short-term solution that makes the long-term problem worse. Financial stress often causes a student to drop out of college. In the short term, this does solve the most immediate concern. Unfortunately, the consequences can be dire, starting sooner than expected. Quitting school means immediately losing access to many benefits of attending college, such as scholarship funds, work-study, and subsidized student prices. It also means the student is expected to start paying back their loans and carrying debt without a degree, which is the worst-case scenario (Harvey, 2020).

Job Outlook Stress

Students must consider jobs that will help them pay off their loans as fast as possible. However, not all jobs available can provide this advantage. Stress comes from realizing they will not repay their loans for many years. Stress increases when students realize they must have qualities that stand out from other job candidates. This pressure means getting involved in more work, volunteer work, or extracurricular activities. Job searching and completing applications can create stress. With so many graduating students competing for the same starting job, students begin to feel as if they want to give up, avoiding rejections. Students may feel their academic success is one way to surpass competitors, pushing themselves academically to achieve the highest grades and honors, leading to academic stress (Harvey, 2020).

Academic Stress

The requirements from one class alone can be overwhelming. Most professors ask students to complete homework assignments and prepare for exams. Also, some require students to author research papers and journals and participate in out-of-class activities. Combining all those activities and magnifying them with several other classes, we can recognize how stressful

it can be for college students. Not all academic stress comes from the professor. Some come from poor time management, and some from the student's parents or guardians (Harvey, 2020).

Family Stress

Goodhearted parents often put excessive stress on students. They may think they are helping them by having high expectations, but it often creates higher stress. Families are not perfect. All the imperfections our family may have can lead to excess stress. Some of the issues faced by families that can create stress for students include divorce, struggling finances, and poor communication. College students strive to find their independence while balancing that with a reliance on their families. They cannot be free while they continue to receive assistance from their family, and they cannot reach their goals without being dependent on them. Achieving this balance can create much stress (Harvey, 2020). Some parents pressure their children to select their preferences without considering their children's interests and aptitudes. The burden of living up to parents' expectations can add to the student's stress. This pressure gradually becomes mental stress for students to cope with their parent’s demands and compete with other students or siblings (Marquis, 2021).

Unhealthy Competition

We all love healthy competition, but what happens when we cross the line to unhealthy? When we obsess about getting a high GPA, this can cause additional stress. We all know that students' grades can impact their future. Failing grades means rejection for opportunities; scholarships may be revoked, impacting their class ranking, or even affecting their graduate school acceptance and job offers. One overlooked impact facing students is choosing a major or career path early in college. Some students are fortunate enough to attend schools that give them

time before declaring a major. Others want students to start taking pre-requisites in their first semester, which can be stressful (Marquis, 2021).

Homesickness

Ask any students who go away to college; did they expect to feel homesick? Do not be surprised; it is more common than we think. Even hardened students feel some form of sadness as they separate from their old lives. Research shows that 1 out of 10 will find it hard to adapt (Marquis, 2021).

Social Apprehension

College life can be intimidating and fear-provoking, especially during the student's first year. Although some are naturally outgoing, most have to work harder to connect. Some students will tend to isolate themselves for fear of rejection (Marquis, 2021).

Everything Else Stress

Aside from classes, family, and doubts about finding a job after graduation, everything else that goes on in a student's life creates stress. Peer pressure is one of these stressors. Students can face peer pressure multiple times throughout every day in college, in each class, the cafeteria, and the dorm room. Students talk to others who pressure them to skip their responsibilities to attend a party, concert, or other activity. They are often pressured to participate in harmful behaviors, like drugs and alcohol. These actions can lead to poor decisions with dangerous consequences, like sexual assaults. Other stressors include personal struggles, pressure to do well, social worries, and heavy workloads. Students also feel stress when they get too little sleep, have a poor diet, and even from having too much idle time. Expecting to speak up in class, being disorganized, and fearing change can lead to apprehension among students (Harvey, 2020).

Consequences of Student Stress

Though certain stress levels push students towards optimum performance, it can have dismal consequences for the student and the institution when it is not managed efficiently due to inadequate resources to cope with the stress (Reddy et al., 2018). Behavioral problems, irritability, and anxiety are among the many issues reported in students with high academic stress (Deb et al., 2015). Adolescents were also reported indulging in various risky behaviors such as increased consumption of alcohol and drugs, unprotected sexual activities, physical inactivity, poor eating, and poor sleeping patterns (American College Health Association, 2009). According to data statistics from the United States in the autumn of 2018, approximately 12.5% of 26,181 college students at 40 universities felt tired, stressed out, or sleepy during the previous seven days, and 29.5% of them had experienced overwhelming nervousness over the previous two weeks (Lu & Fu, 2019).

There are three significant ways excess stress can negatively affect students. The first is that stress decreases sleep quality. Seventy percent of those who report persistent stress also report having sleeping difficulties. Poor sleep negatively impacts concentration, learning, listening, memory, and problem-solving (Carlson, 2016). The second is that stress makes students angrier. Stress may be the cause of students who are prone to bullying others. Besides directing anger at other students, stressed students may resist following school guidelines and respectfully engaging with instructors. They may also exhibit disrespectful behavior online. Their focus on anger may cause overall work to suffer (Carlson, 2016). The third is that stress worsens grades. When students are stressed, it affects their ability to focus during class or studying. Stress may even cause students to drop classes or, worse, drop out of school. For students experiencing stress at home, attending to schoolwork may be a low priority. Educators

need to recognize the significant impact stress has on teens and young adults, and work to create a supportive educational environment, in the classroom and out, including the campus outdoor built environment (Carlson, 2016).

Coping with Stress: Restorative Potential of Universities

College campuses and their surroundings often intersperse learning spaces with places to play, rest, and restore. Examples include green spaces, recreational facilities, intramural clubs, and wellness centers. Experiences in each setting might offer different levels of restoration and impact students' overall quality of life (Markevych et al., 2017). Greenness on a university campus can include trees, perennials, lawns, bushes, seasonal colors, and spaces between buildings. This greenness can be spread around campus at different locations, near buildings, in the central area with common student resources, such as the student union, library, and peripheral sites.

The academic buildings, pathways, and the surrounding campus environments in which other aspects of their daily lives occur contain environmental affordances that promote, enable, or constrain their everyday experiences (Gulwadi et al., 2019). On campuses, unplanned experiences happen when students explore the campus independently, discovering and experiencing environmental effects and finding their use and usefulness. Planned experiences happen when social, cultural, or organizational rules regulate the campus benefits realized. Constrained experiences happen when the design of campus spaces might limit or constrain participation by certain students (e.g., those with mobility or vision impairments). The potential restoration interactions with campus nature may exist but need to be actualized. In many cases, they may be limited by a lack of access or organizational rules (Gulwadi et al., 2019).

The student who can negotiate the campus has some affinity for the place and participates in the place, including but beyond the buildings, and may adjust more quickly to college life. The opposite also has implications: one can imagine that a student who cannot find their way, who is unaware of a place, does not appreciate a place, who does not participate, or who is less connected may be more likely to leave a college if the sending environment is significantly different from the receiving environment of the college. In that situation, the degree of stress will be higher, and perhaps the likelihood of failure greater (Upcraft & Gardner, 1989).

College campuses create green spaces hoping an attractive well-tended setting might help recruit and retain students (Hajrasouliha & Ewing, 2016). However, when students study their campus's outdoor green environment and interpret its variety and affordances, they often recognize additional benefits such as higher perceived restorativeness (Akpinar, 2016) and perceived quality of life (Hipp et al., 2016). They also experience benefits such as more significant recovery from stress (Li et al., 2015) and enhanced cognitive function (Zijlema et al., 2017). Campuses provide various levels of greenness through quads, courtyards, tree-lined walkways, grassy areas, and overviews combined with academic campus buildings. Depending on the topography, building density, and level of integration with surrounding neighborhoods, the amount, placement, and type of campus greenness may vary (Gulwadi et al., 2019).

Green, urban, and livability dimensions on campus have been associated with freshmen retention and academic performance; the higher a campus score with these dimensions, the better the freshman retention rates and student graduation rates (Hajrasouliha, 2017). Dense networks of street trees in urban residential areas were associated with physical activity, the propensity for walking, and distances walked (Sarkar et al., 2015). Green space also modifies harmful effects of environmental factors such as traffic noise; living in a neighborhood deprived of trees was

associated with an enhanced negative effect of traffic noise on the mental health of Bulgarian students (Dzhambov et al., 2018). It has been proposed that the presence of managed landscapes enhances perceived safety because it is suggestive of caring for others (Jorgensen et al., 2007). At the same time, a lack of signs of human care and control may remind people of their mortality and vulnerability to the forces of nature (Koole & Van den Berg, 2005).

Environments considered more natural are also associated with a higher sense of well-being, accompanied by an awareness of their restorative quality (Marselle et al., 2015). Suitable activities that can lessen stress and restore the capacity for daily functioning among fatigued individuals, that is, the most restorative experiences, are those involving nature (Berto, 2004) and its multidimensionality such as refuge, serenity, nature, and richness in species (Grahn & Stigsdotter, 2010). For fatigued students, a surrounding natural environment rich in affordances might initiate and sustain restorative experiences critical for daily functioning, especially if students perceive their campus as having therapeutic potential (Hipp et al., 2016). A supportive environment for learning should also sustain direct attention, an essential resource in education, and restore attention when it is diminished in stressful situations (Kaplan & Kaplan, 1989).

Due to its stress-prone settings, the context of the campus environment and its restorative environmental affordances gains significance because in an affordance model, “The environment has to provide something that the individual can perceive as offering the potential for activity, but the perception emerges only when the different characteristics of the individual, such as his or her physical dimensions and abilities, social needs and personal intentions, are matched with the environmental features (Kyttä, 2004, p. 181)." For example, a relatively flat and smooth surface can enable walking, jogging, or cycling, whereas a grassy slope can enable laying down

for a nap. The campus's environmental affordances can enhance opportunities for intentional, incidental, or indirect student engagement and activities (Scholl & Gulwadi, 2015).

Conclusions

Growing evidence shows administrators have overlooked the school landscape's impact on student academic performance. The cost of this oversight is that millions of students are trying to learn in settings that may be significantly less supportive than they might otherwise be (Li & Sullivan, 2015). The physical campus can impact students' satisfaction and academic performance differently, positively impacting students' mental functioning and social relationships (Hajrasouliha, 2019). University students spend most of their time studying on campus, which requires effort and may cause attention fatigue. Reports from universities and colleges worldwide indicate the outbreak of mental health problems among college students.

Green spaces are a fundamental part of many university campuses. The campus and its facilities are the faces of the institutions. Between 26 and 27% of students attend a school because they like the campus, not the programs (Suttell, 2007). If they do not enjoy the facilities and amenities, they will leave. Traditional students, ages 18 to 22, entering college today differ from those who attended 20 years ago; so are their parents, who pay the bills. They are far more discriminating and have higher expectations for luxury and comfort amenities as a norm, not just in residence halls but campus-wide (Suttell, 2007). Concerning the student experience, Gumprecht (2007) reports that attractive and lively campuses create memories and build loyalty among students. Green space is essential to the total material fabric of many university campuses and helps set the context for what the campus landscape represents, means, and does. Universities with attractive green space areas often highlight these as contributing to the university's student experience and image.

Without a clear understanding of their students, institutions often fail to think beyond the core populations they are already enrolling in or assume the academic programs and student services they offer are suitable. This strategy plays out at institutions again and again as leaders picture their students mainly through the lens of age: traditional (18 to 22 years old) and non-traditional (everyone else). While college students today are very different from past stereotypes, they do have in common the bond they form as students while pursuing their educational interests. The things they see, experience, and learn while working towards their degree still bring them together, as they did decades ago. It is also remarkable that the orientation processes in higher education only sometimes include sense of place for incoming students. The environment addressed seems to end at the campus border and is used more often to describe the community of people than the natural context in which the campus sits (Sauerwein, 2017). A campus mirrors the college or university's soul, reflecting its history, culture and image, management style, and future. It tells all who visit it how it thinks about itself and expects others to judge it.

Being a college student often comes with struggles, like homesickness, poor time-management skills, and impostor syndrome. Add a global pandemic to the mix, which has disrupted students' education, wiped out their finances, and upended their social-support systems. The stage is set to experience many psychological repercussions. Under normal conditions, the risk of behavior disorders among college students is high as they transition to adulthood, but these are not normal conditions. Students worldwide have had to leave campus suddenly, take classes remotely, and abandon their everyday interactions with friends, all because of a global public health crisis (Bencks, 2020).

Academic stress has become a pervasive problem across countries, cultures, and ethnic groups. Students generally experienced higher stress due to pressure and self-imposed stress compared to changes, conflict, and frustration (Misra & McKean, 2000). There is no disagreement that stress is a meaningful concept and stress reduction is aided by natural environment experience (Kaplan, 1987). Quite obviously, anything that aids in the management of stress is desirable. Experience in natural environments can not only help diminish stress; it can also prevent it by assisting in recovering our directed attention (Kaplan, 1987). Campus nature is multidimensional. Not only does it have height, width, and depth, campus nature has taste, odor, sound, texture, and visual appeal. Humans develop in nature, and when they are lost or stressed, they have the instinct to get back to the one thing they can count on to help find themselves, feel safe, and recover; that is nature.

Every adult seems to remember a special place from their past: a place of refuge as a child, a site of family vacations; a grandparent's farm; or somewhere shared with a loved one at a special time. Sense of place, for most people, refers to the rich and varied meanings of places and emphasizes people's tendency to form strong emotional bonds with places. Sense of place is shaped by increasingly complex social, economic, and political processes. Sense of place is more than just one person's feelings about a specific place; such feelings are individual and social. All places are explained by certain social positions and social reasons (Qazimi, 2014).

In 1957, in *America as a Civilization*, Max Lerner, a Russian-American educator and author, documented the loss of community and the quest to regain it, claiming, "this is what I call the problem of place in America, and unless it is somehow resolved, American life will become more jangled and fragmented than it is, and American personality will continue to be unquiet and unfulfilled (Young, 2020, pp. 1-4)." Communities change values and aspirations; individuals

change, so the sense of the place also changes. On the one hand, people impose landscape changes; on the other hand, when space changes, lifestyle, culture, and attitude also transform (Antrop, 2003). Place meaning for people can also change through experiences of tragedy or loss. One of the examples is the transformation of place identity when losing a friend to whom the place was connected. This place does not seem so positive to us anymore.

Transforming spaces into places is an existential activity. Through creating places, people visualize and memorize human properties such as the sense of belonging, social integration, and purpose that give meaning to life and the sense of self (Williams & Stewart, 1998). Sense of place is the most general concept that describes the relationship between people and their spatial settings, incorporating other concepts such as place attachment, place dependence, and place identity. The creation of place is based on two factors: one, the social and cultural contexts, the meanings, values, traditions, and experiences of the people who describe and define a space as a place, and two, the nature of a given space, much of which may not be readily recognizable or categorizable (Irish, 1989). Today, modern people are instead finding suitable places for different stages of life (Hay, 1998). We are born in one place, grow up, go to school, marry, raise children, retire, and die all in different places. Sense of place has become a buzzword used to justify everything from a warm fuzzy appreciation of a natural landscape to selling homesites in urban sprawl. The truth is that we probably have no single sense of place anymore; instead, we bring to the places we live a whole set of cultural preconceptions that shape how we respond to the place (Cross, 2001). According to J. T. Bickford, from his novel *Scandal*, published in 1857; home is where the heart is.

METHODOLOGY

Purpose

As institutions are charged with bringing the most qualified prospects to fruition as enrolled students and at the same time retaining the ones who do enroll, expenditures should be considered as they relate to increasing the satisfaction of prospective and current students. When it comes to higher education, the school itself is the main focus, but can the landscaping of these establishments help draw in more potential students (Presley, 2017)? Many great campuses are defined by the strength of their landscapes and green spaces and depend on these assets as a means of attracting and retaining students (Adekunle & Basorun, 2016).

Assessing the outdoor physical campus environment may enable administrators to understand the level of satisfaction students have with the physical campus environment and which areas could have the greatest impact if improved or left to languish (Eckert, 2012). Students who have already enrolled at an institution experience this same physical campus environment daily, and it becomes a part of their sense of fit on campus (Strange & Banning, 2000). Using an instrument to measure student perceptions of the elements of the outdoor physical campus will allow those administrators to see the campus through the eyes of successfully recruited students (Eckert, 2012). The Association of Higher Education Facilities Officers (APPA) Center for Facilities Research (CFaR) study on the Impact of Facilities on Recruitment and Retention (Cain & Reynolds, 2006a, 2006b; Reynolds, 2007) attempted to establish a clear link between the physical campus environment and student recruitment and retention.

The goal of this study was to break down the physical campus environment into operational components of which questions can be asked. Participants were allowed to provide

feedback regarding their satisfaction with the physical campus environment elements. These questions focused on the attractiveness, amount, and functionality of elements of the physical campus, along with the importance of these elements. Not only did the researcher wish to know if the participant deemed the elements to be satisfactory, but also, were they important to the participant. Linking student opinions and values to decision-making regarding physical campus improvements may provide architects, landscape managers, and enrollment managers with a sense of which projects could bring the most significant returns on investment (Eckert, 2012).

Campus environments have a great deal of influence over their inhabitants. Using cues within the environment, administrators can manipulate the potential for student achievement and growth (Strange & Banning, 2000). The challenge for the successfully recruited student becomes providing an educationally meaningful environment. They will become engaged as a community member and persist to graduation. In *Educating by Design*, Strange and Banning present a case for utilizing campus design attributes to promote student success. This approach is known widely as campus ecology (Kaiser, 1978; Whiston, 1989).

Strange and Banning (2000) believed the environment is critical for establishing a safe space where students can learn, grow, and develop. Student growth and development often involve the student taking the risk of failure or embarrassment, so creating a safe space is essential. Their model details a multi-level progression informed by Maslow's hierarchy. The student transitions from having a basic sense of security to feeling included (level one), to becoming involved and engaged with the environment (level two), and then believe themselves to be a member of a community (level three). New skills are acquired, identity is strengthened, and development occurs throughout the community member's journey (Eckert, 2012).

Elements of a physical campus that make the first impression are campus layout, green space, accessibility, cleanliness, color schemes, visible amenities, new facilities, building style, and manicured landscapes (Strange & Banning, 2000). A quality outdoor campus landscape can create a venerable campus identity, stir alumni sentimentalism and establish a strong sense of community (Griffith, 1994). Physical space should be constructed to encourage socialization between students, staff, and faculty. The physical campus environment can positively and negatively affect new and current participants. Of the four areas (physical campus environment, constructed environment, organizational environment, and human aggregate environment) described by Strange and Banning (2000), the physical campus is probably the least understood in terms of student development. Having college identity match a student's expectations can enhance the enrollment of a college, and better serve each student (Sauerwein, 2017).

Assumptions

Several assumptions underlie this study, but the largest is that an enrolled student may serve as a proxy for a prospect. Given that the importance of a physical campus, beyond being a simple delivery device for education, lies in its ability to impact the attraction of prospects and persistence of admitted students, this study surveyed successfully recruited matriculated students. This population has a more significant amount of interaction with the campus and likely resembles the characteristics of a prospect that would be well suited to attend the institution (Eckert, 2012).

A second assumption is that students are mindful of their environment; they think whether elements of the physical campus satisfy them and can indicate the relative importance they attribute to those elements. Students who are not knowledgeable about their campus will have a more difficult time recalling the campus environment for assessment and may provide

less valid data (Baird, 1988). Further, Alexander Astin, Distinguished Professor Emeritus of Higher Education and Organizational Change, University of California, Los Angeles (1993) noted, "the student's perception of the college environment can be affected both by what the environment is like and by how the student has been influenced by that environment." Using student perceptions to measure the environment is not a perfect approach, but it is the route often selected for a variety of inventories about campus programs and services (Eckert, 2012).

A third assumption relies on the ecological approach to campus design. The ecological approach assumes that students are impacted by their environment, and they, in turn, impact the environment. This study rests on the integrity of this approach. Students have various behavioral options; the campus should be designed to encourage positive behaviors while discouraging undesirable ones. Students will experience cognizance or dissonance with environments in which they are placed; congruent environments often elicit positive behaviors, while incongruent environments may negatively influence (Banning, 1985; Kaiser, 1978; Kuh & Hall, 1993; Strange & Banning, 2000; Tracey & Sherry, 1984; Walsh, 1973). Through this, the researcher assumes that the environment impacts the student, making it functional and valuable to measure that environment.

Organization of Study

The biographic items included in the Outdoor Physical Campus Assessment tool provide campus planners the opportunity to determine if there are group-based differences (gender, age, class or attendance status, GPA, distance from home) in subsequent analysis following this research. After the biographic questions, a small number of campus-based behavior questions were included, asking respondents to indicate if they visited the campus before enrolling, how many hours a week they spend on campus, how they get around campus, and if the campus was

their first, second, or third choice to attend. To determine the specific elements participants associate with an attractive campus, respondents were asked to select elements from a list, as many as they agree with, that contribute to an attractive campus environment (Eckert, 2012).

The next portion of the instrument asked the participants to indicate their level of satisfaction with element-based prompts. This portion of the instrument is split into four sections, one devoted to determining the importance a student attributes to the elements of the outdoor campus environment and three devoted to their level of satisfaction with those elements. The satisfaction questions are split into three sections: satisfaction with the attractiveness of elements, satisfaction with the number of elements, and satisfaction with the functionality of elements. Accessibility, overall aesthetics, art (sculpture, statues), building style, campus cleanliness, entranceways, formal meeting space (outdoor plazas, amphitheaters), informal meeting space (benches and picnic areas), fountains and water features, green space, landscaping, and trees, the layout of the campus, lighting, maintenance, seating, signage, trash, recycling, and cigarette disposal receptacles, and walkways were considered by participants in terms of both satisfaction and importance (Eckert, 2012).

As a compromise for the field test, an additional bank of questions was added; the same element prompts were employed, but instead of asking about satisfaction, the participants were asked to indicate if the campus had too much or too little (on a 5-point scale) of a given element. This change allowed the participants to signal their satisfaction (on the original question) and their specific opinion of the amount of an element (Eckert, 2012).

After participants were asked about physical elements of the outdoor campus, the next section of the survey contained questions related to how familiar a participant was with their current college campus. In addition, participants were also asked whether or not they agreed with

outcome-related prompts, asking them about their first impression of campus, the legibility of the campus environment, whether the campus has a sense of mystery and personality, whether the campus meets their needs, and if they feel safe and comfortable on campus (Eckert, 2012).

The next section of the survey was questions the researcher added to the instrument which were specific to the area of study. They consisted of areas and features for relaxation, which parts of the campus do the students like the most and least, which part of the campus they use to study the most, which part of the campus do they connect with the most, do they use nature to relax and do they think the campus landscape (nature) is essential for their well-being and mental health. The purpose of these questions was to allow the students to have some open-ended questions providing their own perspectives, and then find out how important nature was to them directly.

The items listed below are the focus of the survey instrument developed to measure student perceptions of the outdoor physical campus environment. Each element was selected because it was represented in the literature on outdoor campus environments or was a recurring theme in discussions with campus architects or consultants. These elements range from conceptual (aesthetics, building style cohesiveness, cleanliness, and maintenance) to concrete (landscaping, trees, formal meeting space) to abstract (legibility, mystery, sense of place) in nature (Eckert, 2012).

The instrument was created within the SurveyMonkey™ survey tool and was delivered entirely online with responses tracked within the SurveyMonkey's™ interface. The email inviting participants to join the study indicated that the research was focused on the outdoor campus environment. They were selected to participate as a member of their current institution. Invited participants could choose to participate by opening the unique link in the email they

received soliciting their participation. Follow-up emails (up to two messages to non-responders) were generated using the SurveyMonkey™ email tool. The first reminder was sent to individuals who had not clicked the survey participation link on the seventh day of the survey window. A second (final) reminder was sent to individuals who had not clicked the survey link after 20 days. Participants were given 27 days to respond to the request for participation. After the survey, the link was closed.

Data collection took place between March 22 and April 17, 2022. The participation invitation email was sent to students approximately 60 days after the first day of classes for the Spring 2022 term. Respondents were instructed through the email that the survey tool does not store personal information, only their demographic data, major, and selected attributes covered by the instrument. Respondents were asked to complete the survey within 27 days. After the data collection window ended, the results were downloaded from SurveyMonkey™ to be analyzed using IBM-SPSS.

The surveys were delivered using the SurveyMonkey™ email tool, which allowed the researcher to upload the selected sample's email address. This tool allows for tracking who has responded to the survey (partially or completely) and provides a means to send reminder emails to participants who have not begun the survey. Individuals who did not open the survey were sent a reminder seven days after the initial email, asking them to consider participating. On the 20th day of the survey deployment, non-responders were sent a final invitation to participate with a survey close date in the subject and text.

Participants

Participant Selection/Description: Undergraduate students at Southern Methodist University, 18 years or older, degree seeking and enrolled Fall 2021 and Spring 2022.

Risks to Participants: There are no anticipated risks beyond those encountered in everyday life.

Survey Invitation Email:

From: kldilliard@smu.edu via surveymonkey.com

Reply-to: kldilliard@smu.edu Mailed-by: smu.surveymonkey.com

Hello

My name is Kevin L. Dilliard, I am a candidate for the Doctor of Liberal Studies at Southern Methodist University. I am interested in student opinions regarding the outdoor campus environment at universities. You have been selected from your peers to receive my survey; I hope you are willing to give me a few minutes of your time. Once you complete the survey, you will be eligible for a drawing for a $50 gift card from a local restaurant. Your odds of winning depend on the number of completed surveys. This survey will take approximately 20 minutes to complete. This link is uniquely tied to this survey and your email address. Please do not forward this message. Your responses are confidential and will not be shared except in the aggregate. Please consider participating in this study. Your insights will add to the knowledge we have on the outdoor campus environment and may lead to the improvement of campus spaces here and at other colleges and universities. Thank you for your time. If you have any questions about this research, please feel free to contact me via email (kldilliard@smu.edu). This consent form (on the following page) will provide you with information on the research project, what you will be asked to do, and the benefits of this research.

Thank you for taking the time to help me with this research, Kevin.

Informed Consent

Purpose: This survey has been created to measure your perceptions of the outdoor campus environment. The goal of this research is to obtain information on elements of the outdoor campus environment to provide campus administration with a sense of how the students perceive the outdoor environment.

Procedures: As a participant, you will be asked to complete this survey. The survey will contain demographic questions and questions related to attending college (major, GPA, number of hours a week on campus, full or part-time status, and familiarity with campus). The survey will also ask you questions on your opinions of individual elements of the outdoor campus, and to consider your agreement or disagreement with a few statements pertaining to the campus environment. After you complete the survey, you will not be contacted again unless you are selected in the drawing for a $50.00 gift card.

Benefits: This research may not benefit you directly. However, this research has the potential to improve the effectiveness of campus improvement projects and demonstrate to administration what elements of the campus environment the student population is most interested in improving.

Risks and Discomforts: There are no anticipated risks beyond those encountered in everyday life.

Privacy and Confidentiality: You are receiving this survey because you were selected from your peers, and the only information the researcher has been given is your name and email address. This information is being stored in a secure location. Your responses to this survey are confidential and will be used only in the aggregate. This means that individual responses to questions will not be used in a way that could be connected to an individual participant. Please

note that confidential means that your response will be linked to your name and email address, but that information will not be shared with anyone at any point in time in the future.

Compensation: If you complete all portions of this survey in their entirety, you will be entered in a drawing for one of several $50.00 gifts cards to a local restaurant. Your probability of being selected in the drawing depends on the number of individuals completing the survey between March 22, 2022, and April 17, 2022.

Voluntary Participation: Taking part in this research study is entirely up to you. You may choose not to participate, or you may discontinue your participation at any time without penalty.

Contact Information: If you have any questions or concerns about this research, you may contact Kevin L. Dilliard at kldilliard@smu.edu. This project has been approved by the SMU Institutional Review Board.

Consent Statement: I have read this consent form and have had the opportunity to have my questions answered to my satisfaction. My completion and return of this survey will be indicative of my consent to participate in this research study. I may print or request a copy of this consent statement for future reference.

Respondents Profile

As part of the survey, there were 6,288 emails sent to SMU students meeting the Participant Selection/Description from above with 175 responses (3%) and of those, 133 (76%) totally completed the survey. The majority of the respondents were female (63%) compared to male (35%) and others (2%) (Table 1). They were fairly evenly distributed over the class standings; first year (22%), second year (31%), third year (26%) and fourth year (21%) (Table 2) with them evenly split between living on-campus (52%) and off-campus (48%) (Table 3). The majority of respondents came from the Business School at 39% (Table 4) with the others spread out over the

rest of the colleges. The race/ethnic background came back as expected with the vast majority being white (71%) (Table 5) and from either a large-suburban (32%) or metropolitan (31%) town (Table 6).

Table 1: Q2: What Gender do you consider yourself? Answered: 175 Skipped: 0

Answer Choices	Response #	Response %	SMU Fall 2021 %
Female	111	63%	49%
Male	61	35%	51%
Transgender	2	1%	
Non Binary	1	1%	
Prefer Not to Say	0	0%	

Table 2: Q3: What is your current class Standing? Answered: 175 Skipped: 0

Answer Choices	Response #	Response %
First – year student	39	22%
Second – year student	54	31%
Third – year student	45	26%
Fourth – year student	37	21%

Table 3: Q19: Do you live on or off campus? Answered: 170 Skipped: 5

Answer Choices	Response #	Response %
On-campus (Residence Hall)	89	52%
Off-campus	81	48%

Table 4: Q10: Select the group closest to your primary academic major.

Answered: 175 Skipped: 0

Answer Choices	Response #	Response %
Undecided	1	1%
Creative Arts (fine and applied)	3	2%
Performing Arts (music, theater and dance)	11	6%
Humanities	4	2%
Biological Science	13	7%
Physical Science	4	2%
Computer Science	17	10%
Social Sciences	18	10%
Business	69	39%
Communication	13	7%
Education	1	1%
Health and Human Services	1	1%
Professional	2	1%
Engineering	18	10%

Table 5: Q11: Select the race/ethnic background(s) you consider yourself.

Answered: 175 Skipped: 0

Answer Choices	Response #	Response %	SMU % Fall 2020
International Student	5	3%	6%
American Indian or Alaska Native	2	1%	0.3%
Asian	20	11%	8%
Black or African American	2	1%	5%
Hispanic or Latino(a)	12	7%	15%
Native Hawaiian or Other Pacific Islander	1	1%	0.1%
White	125	71%	61%
Prefer Not to Say	8	5%	1%

Table 6: Q13: Please estimate the size of the town in which you were raised.

Answered: 175 Skipped: 0

Answer Choices	Response #	Response %
Rural (< 5,000 residents)	1	1%
Small-suburban (5,001-25,000 residents)	25	14%
Medium-suburban (25,001-75,000 residents)	32	18%
Large-suburban (75,001-200,000 residents)	56	32%
Metropolitan (> 200,001 residents)	54	31%
I have no idea.	7	4%

Limitations

This study had the following limitations: the timing of the survey was restricted to the Spring 2022 semester due to the need to make sure to include first and second term students; the length of survey was obviously a deterrent to some students because many had started the survey but decided to quit early reducing the number of responses to some of the questions (primarily the second half); the process for receiving research approval was not necessarily difficult but was a surprise and delayed the survey, because this was not something made apparent during the previous courses. The number of steps was also a surprise mainly due the fact that not everyone the researcher talked to was aware of some of the requirements needed by other departments; and the researcher surveyed only one four-year private university in the Southwest United States which may have skewed the responses. The survey could have included additional private schools as well as some state-run schools.

DATA ANALYSIS

The results of Question 21 was helpful in understanding what students thought were the most important features of an attractive campus. The features considered to have the highest value were the ones with a score of 75% or greater. They were Campus landscaping (85%), Trees on Campus (82%), Green Spaces (89%), Well-maintained outdoor campus environments (75%), Clean outdoor campus environments (76%), and Style of Architecture (75%).

Q21: In general, what makes a college or university campus attractive?

Answered:170 Skipped: 5

Answer Choices	Response #	Response %
Campus Landscaping	145	85%
Trees on Campus	139	82%
Green Spaces	152	89%
Well-maintained outdoor campus environments	128	75%
Clean outdoor campus environments	129	76%
Style of Architecture	128	75%

The responses above represent those that had a response rate of 75% or higher. They were the top six out of 20 possible choices. Refer to Appendix E or total results.

Landscape:

The level of satisfaction with the amount of campus landscaping was in the Very Satisfied (55%) and Satisfied (32%) range, indicating students did appreciate the quantity of landscape.

Q23: Indicate your level of satisfaction with the amount of the following elements at SMU.

Answered: 154 Skipped: 21

Amount of Campus Landscaping	Very Satisfied = 55%	Satisfied = 32%

The results for the importance of the presence of campus landscaping showed students thought landscaping was either Very Important (45%), Important (31%) or Somewhat Important (17%). This indicated that students consider the campus landscape a crucial element for their university.

Q26: Please indicate how important the following elements are to you on the SMU campus.

Answered: 141 Skipped: 34

The presence of campus landscaping	Very Important = 45%	Important = 31%	Somewhat Important = 17%

As shown in Table 7, the Correlation between Level of Satisfaction with Amount of Campus Landscaping and the Importance of Campus Landscaping to the student is significant. It is good to see that something that is important is at a level the students are happy with.

Table 7: Correlation between Level of Satisfaction with Amount of Campus Landscaping and the Importance of Campus Landscaping.

	Indicate Importance to You for Presence of Campus Landscaping
Level of Satisfaction with Amount of Campus Landscaping	**Pearson Correlation = 0.206* Sig. (2-tailed) = 0.014 N = 140**
	***Correlation is Significant at the 0.05 Level (2-tailed).**

Trees:

The level of satisfaction with the amount of campus Trees was in the Very Satisfied (64%), Satisfied (25%) and Somewhat Satisfied (6%) range, indicating students did appreciate the quantity of Trees.

Q23: Indicate your level of satisfaction with the amount of the following elements at SMU.

Answered: 154 Skipped: 21

Amount of the trees on campus.	Very Satisfied = 64%	Satisfied = 25%	Somewhat Satisfied = 6%

The results for the importance of the presence of campus trees showed students thought trees were either Very Important (61%), or Important (27%). This indicated that students consider that campus trees a crucial element for their university.

Q26: Please indicate how important the following elements are to you on the SMU campus.

Answered: 141 Skipped: 34

The presence of trees on campus	Very Important = 61%	Important = 27%	Somewhat Important = 7%

As shown in Table 8, the Correlation between Level of Satisfaction with Attractiveness of Trees and the Importance of Trees to the student is significant. It is good to see that something that is important is at a level the students are happy with.

Table 8: Correlation between Level of Satisfaction with Attractiveness of Trees on Campus and Importance of trees on Campus to the Students.

	Level of Satisfaction with Attractiveness of Trees on Campus
Indicate Importance to You for Presence of Trees on Campus	**Pearson Correlation = 0.200* Sig. (2-tailed) = 0.018 N = 140**
	***Correlation is Significant at the 0.05 Level (2-tailed).**

Green Spaces:

The level of satisfaction with the amount of green spaces was in the Very Satisfied (54%) and Satisfied (32%) range, indicating students did appreciate the quantity of green spaces.

Q23: Indicate your level of satisfaction with the amount of the following elements at SMU.

Answered: 154 Skipped: 21

Amount of campus green spaces.	Very Satisfied = 54%	Satisfied = 32%	Somewhat Satisfied = 7%

The survey indicated that students either thought there was no change in the amount of green spaces (65%) needed or there were more needed (28%). That falls in line with the amount of green spaces wanted.

Q24: Please indicate if you would like more, less, or no change in the amount of the following features at SMU. Answered:154 Skipped: 21

Campus green spaces	Much More = 7%	More = 28%	No Change = 65%

The results for the importance of the presence of campus green spaces showed students thought open spaces were either Very Important (56%), Important (31%) or Somewhat Important. This indicated that students consider the campus green spaces a crucial element for their university.

Q26: Please indicate how important the following elements are to you on the SMU campus.

Answered: 141 Skipped: 34

The presence of green spaces	Very Important = 56%	Important = 31%	Somewhat Important = 8%

There is a strong Correlation between the Amount of Green Spaces and Changes of Green Spaces but there is no Correlation between Importance and either Amount or Changes.

Table 9: Correlation between Level of Satisfaction with Amount of Campus Green Spaces, Amount of Campus Green Spaces and Importance of Campus Green Spaces.

	Level of Satisfaction with Amount of Campus Green Spaces	**Indicate Importance to You for Presence of Green Spaces**
More, Less or No Change in Amount of Campus Green Spaces (lawns and open fields)	**Pearson Correlation = -0.330** Sig. (2-tailed) = <0.001 N = 140**	**Pearson Correlation = 0.122 Sig. (2-tailed) = 0.152 N = 140**
Indicate Importance to You for Presence of Green Spaces	**Pearson Correlation = 0.067 Sig. (2-tailed) = 0.436 N = 138**	
	****Correlation is Significant at the 0.01 Level (2-tailed).**	

Formal Meeting Spaces:

The level of satisfaction with the amount of formal meeting spaces was in the Very Satisfied (28%) and Satisfied (25%) range, but the majority was in the Somewhat Satisfied (16%), Neutral (13%) and Somewhat Dissatisfied (14%) indicating students did not approve of the quantity of formal meeting spaces.

Q23: Indicate your level of satisfaction with the amount of the following elements at SMU.

Answered: 154 Skipped: 21

Amount of outdoor formal campus meeting spaces.	Very Satisfied = 28%	Satisfied = 25%	Somewhat Satisfied = 16%	Neutral = 13%	Somewhat Dissatisfied = 14%

The survey indicated that students either thought there was no change in the amount of formal meeting spaces (49%) needed, but there is a large amount indicating that Much More is needed (10%) or More is needed (40%). This indicates that students feel there is a greater need for formal meeting spaces on campus.

Q24: Please indicate if you would like more, less, or no change in the amount of the following features at SMU. Answered: 154 Skipped: 21

Formal campus meeting spaces.	Much More = 10%	More = 40%	No Change = 49%

The results for the importance of the presence of formal meeting spaces showed students thought formal meeting spaces were either Very Important (28%), Important (31%) or Somewhat Important (26%) . This indicated that students consider the campus formal meeting spaces a crucial element for their university.

Q26: Please indicate how important the following elements are to you on the SMU campus.

Answered: 141 Skipped 34

Presence of outdoor formal campus meeting space	Very Important = 28%	Important = 31%	Somewhat Important = 26%

There is a strong Correlation between Amount of Formal meeting spaces and any needed Changes, plus a strong Correlation between any needed Changes and Importance of Formal meeting spaces. There appears to be no Correlation between Amount and Importance.

Table 10: Correlation between Level of Satisfaction with Amount of Outdoor Formal Campus Meeting Spaces, Amount of Formal Meeting Spaces and Importance of Outdoor Formal Campus Meeting Spaces.

	Level of Satisfaction with Amount of Outdoor Formal Campus Meeting Spaces	**Indicate Importance to You for Presence of Outdoor Formal Campus Meeting Space**
More, Less or No Change in Amount of Formal Campus Meeting Spaces	**Pearson Correlation = -0.473** Sig. (2-tailed) = <0.001 N = 151**	**Pearson Correlation = 0.263** Sig. (2-tailed) = 0.002 N = 140**
Indicate Importance to You for Presence of Outdoor Formal Campus Meeting Space	**Pearson Correlation = 0.036 Sig. (2-tailed) = 0.674 N = 139**	
	****Correlation is Significant at the 0.01 Level (2-tailed).**	

Informal Meeting Spaces:

The level of satisfaction with the amount of informal meeting spaces was in the Very Satisfied (20%), Satisfied (26%) and Somewhat Satisfied (16%) range, with a group of Neutral (8%), Somewhat Dissatisfied (16%), Dissatisfied (10%), and Very Dissatisfied (3%) for a total of 38% indicating students did feel there was a need to improve the quantity of informal meeting spaces.

Q23: Indicate your level of satisfaction with the amount of the following elements at SMU.

Answered: 154 Skipped 21

Amount of informal meeting spaces	Very Satisfied = 20%	Satisfied = 26%	Somewhat Satisfied = 16%
Neutral = 8%	Somewhat Dissatisfied = 16%	Dissatisfied = 10%	Very Dissatisfied = 3%

The survey indicated that students either thought there was no change in the amount of formal meeting spaces (21%) needed, but there is a large amount indicating that either much more (24%) or more is needed (55%). This indicates that students feel there is a greater need for informal meeting spaces on campus.

Q24: Please indicate if you would like more, less, or no change in the amount of the following features at SMU. Answered: 154 Skipped: 21

Informal meeting spaces	Much More = 24%	More = 55%	No Change = 21%

The results for the importance of the presence of informal meeting spaces showed students thought informal meeting spaces were either Very Important (44%), Important (31%) or Somewhat Important (16%) . This indicated that students consider the campus informal meeting spaces a crucial element for their university.

Q26: Please indicate how important the following elements are to you on the SMU campus.

Answered: 141 Skipped 34

The presence of outdoor informal meeting spaces	Very Important = 44%	Important = 31%	Somewhat Important = 16%

There is a strong Correlation between Amount of Informal meeting spaces and any needed Changes, plus a strong Correlation between any needed Changes and Importance of informal meeting spaces. There appears to be no Correlation between Amount and Importance.

Table 11: Correlation between Level of Satisfaction with Amount of Outdoor Informal Meeting Spaces, Amount of Outdoor Informal Meeting Spaces and Importance of Outdoor Informal Meeting Spaces.

	Level of Satisfaction with Amount of Outdoor Informal Campus Meeting Spaces	**Indicate Importance to You for Presence of Outdoor Informal Campus Meeting Space**
More, Less or No Change in Amount of Informal Campus Meeting Spaces	**Pearson Correlation = -0.531** Sig. (2-tailed) = <0.001 N = 151**	**Pearson Correlation = 0.261** Sig. (2-tailed) = 0.002 N = 139**
Indicate Importance to You for Presence of Outdoor Informal Campus Meeting Space	**Pearson Correlation = -0.092 Sig. (2-tailed) = 0.282 N = 139**	
	****Correlation is Significant at the 0.01 Level (2-tailed).**	

A greater amount of students believe the campus to be visually interesting: Strongly Agree (41%), Agree (46%) or Somewhat Agree (11%). This indicates the students are paying attention to the outdoor campus environment.

Q30: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

This campus is visually interesting.	Strongly Agree = 41%	Agree = 46%	Somewhat Agree = 11%

A greater amount of students believe the campus to be attractive: Strongly Agree (69%) or Agree (26%). This indicates the students are not only paying attention to the outdoor campus environment but think it looks attractive.

Q31: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

I consider this campus attractive	Strongly Agree = 69%	Agree = 26%

There is a strong Correlation between the Visual Interest of the campus and the Attractiveness of the Campus.

Table 12: Correlation between Campus being Visually Interesting and is this Campus Attractive.

	This Campus is Visually Interesting
I Consider This Campus Attractive	**Pearson Correlation = 0.605**** **Sig. (2-tailed) = <0.001** **N = 133**
	****Correlation is Significant at the 0.01 Level (2-tailed).**

One of the important aspects of a campus outdoor built environment is helping students feel at home. The survey indicates this to be true: Strongly Agree (41%), Agree (36%) and Somewhat Agree (16%).

Q34: Please indicate your level of agreement with this statement.

Answered: 133 Skipped 42

I am comfortable with the outdoor environment of the campus.	Strongly Agree = 41%	Agree = 36%	Somewhat Agree = 16%

One of the other important aspects of a campus outdoor built environment is helping students feel safe. The survey indicates this to be true: Strongly Agree (36%), Agree (38%) and Somewhat Agree (17%).

Q35: Please indicate your level of agreement with this statement.

Answered: 133 Skipped 42

The outdoor environment of this campus makes me feel safe	Strongly Agree = 36%	Agree = 38%	Somewhat Agree = 17%

There is a strong Correlation between Feeling at Home and Feeling Safe.

Table 13: Correlation between student being Comfortable with Campus Outdoor Environment and if the Campus Outdoor Environment makes them feel Safe.

	I am Comfortable (felt at home) With the Outdoor Environment of this Campus
The Outdoor Environment of this Campus Makes Me Feel Safe	**Pearson Correlation = 0.561**** **Sig. (2-tailed) = <0.001** **N = 133**
	***Correlation is Significant at the 0.01 Level (2-tailed).**

Survey results show the majority of students either Strongly Agree (47%) or Agree (44%) that the campus has a sense of personality.

Q37: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

I believe the outdoor campus environment shows a sense of campus personality.	Strongly Agree = 47%	Agree = 44%

Survey results show the majority of students either Strongly Agree (44%), Agree (34%) or Somewhat Agree (8%) that the outdoor environment of this campus made them more interested to attending this university.

Q38: Please indicate your level of agreement with this statement.

Answered: 133 Skipped 42

The outdoor environment at this campus made me more interested in attending SMU.	Strongly Agree = 44%	Agree = 34%	Somewhat Agree = 8%

The most relevant question to this study was Question 39. The survey results show the majority of students either Strongly Agree (41%), Agree (32%) or Somewhat Agree (10%) that the outdoor environment at this campus makes them want to continue to attend this university.

Q39: Please indicate your level of agreement with this statement.

Answered: 133 Skipped 42

The outdoor environment at this campus makes me want to continue to attend this school.	Strongly Agree = 41%	Agree = 32%	Somewhat Agree = 10%

There is a very strong Correlation between the campus Personality, Interest in Attending this university and Wanting to Continue to Attend this university. This indicates that the Outdoor Campus Environment plays a very important part in the financial success of universities because the cost of recruiting new students is only getting higher and with any student who decides to stay rather than leave will save the university a great deal of money and will also give the students a sense of belonging and an increase in success. This is truly a return on investment.

Table 14: Correlation between Sense of Campus Personality, Interest in Attending SMU and Want to Continue to Attend this School.

	I Believe the Outdoor Campus Environment Shows a Sense of Campus Personality	**The Outdoor Environment at this Campus Makes Me Want to Continue to Attend this School**
The Outdoor Environment at this Campus Made Me More Interested in Attending SMU	**Pearson Correlation = 0.428** Sig. (2-tailed) = <0.001 N = 133**	**Pearson Correlation = 0.701** Sig. (2-tailed) = <0.001 N = 132**
The Outdoor Environment at this Campus Makes Me Want to Continue to Attend this School	**Pearson Correlation = 0.385** Sig. (2-tailed) = <0.001 N = 132**	
	****Correlation is Significant at the 0.01 Level (2-tailed).**	

The next three questions allowed the students to use their own words in expressing their feelings regarding the campus outdoor built environment. The responses were analyzed using the SurveyMonkey™ word bubble feature. The results are clear in that the students actual use the outdoor features and amenities to relax helping to reduce stress and they also connect more with the outdoors more than being inside residences, classrooms or other buildings.

Q40: When you want to relax, where on campus do you go?

Answered: 133 Skipped: 42

Lawns Specific	51%
Outdoor Campus in General	12%

Q41: What features in this area helps you relax?

Answered: 133 Skipped: 42

Trees/Shade	25%
Open Space	54%
Outdoor Seating	17%
Fountains	11%

Q45: Which part of campus do you connect with the Most?

Answered: 133 Skipped 42

Dallas Hall Lawn/Quad	17%
Bishop Boulevard	5%
Other lawn area	5%
Outside in General	2%

The final two questions were to get students general feelings of nature and whether they used it for stress relief and if they saw nature as being important for their well-being and mental health. The results are very clear that students felt nature is important for both: Relax (71%) and Essential for Well-Being and Mental Health (88%).

Q46: I use nature to relax during studies.

Answered: 133 Skipped: 42

Answer Choices	Responses
Yes	71%
No	29%

Q47: The campus outdoor environment is essential for my well-being and mental health.

Answered: 133 Skipped: 42

Answer Choices	Responses
Yes	88%
No	12%

There is a very strong Correlation between using nature to relax and its importance for student well-being and mental health.

Table 15: Correlation between using Nature to Relax During Studies and the Campus Outdoor Environment being Essential to students Well-being and Mental Health.

	I Use Nature to Relax During Studies
The Campus Outdoor Environment is Essential for My Well-being and Mental Health	**Pearson Correlation = 0.371** Sig. (2-tailed) = <0.001 N = 133**
	***Correlation is Significant at the 0.01 Level (2-tailed).**

SUMMARY

This study was designed to discern if and how much there is a relationship between the campus outdoor built environment, specifically the landscape, and SMU college student's completion of their first semester and return to campus for their second semester. Some of the studies found during the literature review, indicated there were a significant number of students who either failed to complete their first semester or chose not to return for their second. There are many reasons for this to happen, and along with that, many complicated solutions. The research shows that the campus outdoor built environment can play a major role in helping students to cope with the many issues which are common with young adults. They are away from home for the first time and trying to succeed at a level which is very stressful under normal circumstances, but then through in all the baggage they bring with them, and you have the potential for a major meltdown.

The survey, which was done as part of this study, was able to show what students thought were important features for an attractive campus, which were mostly nature and landscape

related. The students were asked their level of satisfaction with the amount of outdoor elements on their campus and then whether they thought there should be more, less or no change in the amount. They were also asked to indicate how important those elements were to them at their university. The results indicated they thought nature related elements were important across the board. They were also asked about the influence of the campus outdoor built environment on whether they thought this university was the right one when they visited the campus. This question was associated with whether they thought the campus was visually interesting and if they thought the campus was attractive. There was a direct correlation between the three. They were also asked whether the campus made them feel safe, at home and whether the campus had a sense of personality. These too had direct correlations. The study and survey clearly indicate that the campus outdoor built environment can have positive influence on whether a student completes their first semester and returns for their second.

SUGGESTIONS FOR FURTHER STUDY

The lack of research on plant benefits has tended to reduce spending for landscapes in important settings, such as workplaces, health-care facilities, outdoor areas of apartment complexes, and educational campuses. Increased research in this area together with communications to make the public aware of the findings could increase the appreciation and use of plants significantly and could increase the demand for horticultural products and services, increase the number of jobs in the industry and, ultimately, increase the demand and funding for traditional horticultural research and education. With sufficient information, horticulturists may play a role in altering culturally based or learned responses to vegetation by strongly re-enforcing more environmentally sustainable and humanly healthful landscapes.

Much has been learned about human responses to vegetation and landscapes in recent years. However, despite the progress in this area, several important questions remain unresolved. In the case of research on both natural and urban landscapes, very little work has compared preferences for different tree species, and studies of liking responses to smaller types of vegetation, such as shrubs and herbaceous flowering plants. A significant direction for future research concerns the tangible valuation of attractive visual landscape's aesthetic and psychological benefits. The implementation of aesthetic considerations in planning contexts has long been handicapped by the lack of empirical studies documenting the social and economic values of visual quality. Much more work is needed to establish relationships between visual landscape characteristics, aesthetic and emotional responses, human health measures, and economic productivity.

Future studies should examine how physical exposure to green campuses affects student's stress and attentional functioning. Potential research might measure the combined impact of green views and immersive green experiences, such as exercising on the school grounds and student performance. Most high schools in the US have breaks of 10 min or less. A break of 10 min was long enough to demonstrate the impact of green views on attention and stress. Would a more extended break have shown a more significant effect on stress recovery? Would increase the frequency of breaks also show an effect? What effect does the interaction between the duration and frequency of breaks with a green view have on student's stress recovery and attention restoration? It is also possible that the relationship between green views and stress recovery is not linear. That is, in the first few minutes of a green view, stress recovery may be slow, but over time, recovery may speed up. The green view is a promising area for

future research, directly testing the mediation effect of attention and stress on academic performance.

Besides all the advantages of the subjective theory over the objective theory, there is a need for additional exploration into a human preference for different landscapes. This study is critical to assert that landscape preferences are essential for environmental and social management. In addition, studies are needed to explore factors that potentially affect landscape preferences. Identifying new factors influencing landscape preferences is certainly welcomed as it will broaden our understanding of human likings for landscapes, thus enabling us to manage the environment better. This information may clarify why landscapes are often found attractive, deemed beautiful, and crucial for human survival and well-being. Therefore, more studies need to be undertaken to show the critical relationship between landscape preferences and human well-being. The firm establishment of this link will enable us to discuss further that landscape design and management works cannot be regarded as mere beautification, especially to policymakers and other design professionals.

Among the new directions that could be explored to understand the relationship between landscape preference and human health is to study recent findings in genetic studies. A question such as whether people with different DNA configurations have different landscape preferences could be looked into further. Another factor that needs further exploration is the relationship between landscape preference and culture. Culture is arguably the most influential factor affecting preference because people grow up in a particular culture, which provides informal lessons on how to perceive the world. Cross-cultural research has become more critical today because the effect of globalization has intruded into our daily life. Therefore, understanding cultural differences and similarities have become more critical than before. A study cannot just

compare and contrast why landscape preference is similar or different among cultural groups. However, the study needs to explain why a particular culture becomes a significant predictor of landscape preferences. For example, Judeo Christians and Muslims believe that their religions play essential roles in their understanding of nature or landscapes and what roles the people should play with nature. A question such as whether a civilization's survival is related to its respect for landscape should be an exciting subject matter to be studied.

Further studies are advocated to understand better how the human mind processes information about the world, hence, making preferences. Likewise, studies on the influences of cultural attitudes and values towards nature are welcomed for landscape architects, planners, and building architects to know the relationship between landscape preferences and human well-being while not neglecting how certain cultural groups express landscape preferences collectively. This information is imperative for how the landscape should be designed and managed. Another area that is lacking research is how the chosen field of study by university students affects their opinion of landscape styles and different plant types, and how can the landscape of the buildings within the schools making up the university can influence students to attend that university. If this was known, the landscape designers could help the schools recruitment and retention rates in the long run.

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APPENDIX

Appendix A: Outdoor Physical Campus Assessment

Tell Me About Yourself:

1. **How old will you be on December 31 of this year? _____.**

2. **What Gender do you consider yourself:**

   ◯ Male ◯ Non Binary

   ◯ Female ◯ Prefer Not to Say

   ◯ Transgender

3. **What is your current class standing?**

   ◯ First-year student

   ◯ Second-year student

   ◯ Third-year student

   ◯ Fourth-year student

4. **Did you come to SMU as an undergraduate transfer student (did you attend college after high school somewhere else before coming to this university)?**

   ◯ Yes ◯ No

5. **Are you a full-time or part-time student (to be full-time, you must be enrolled in twelve or more undergraduate credit hours)?**

   ◯ Full Time ◯ Part Time

6. **Did you visit the campus informally before you selected SMU? (Examples include Little Sibs weekend, on-campus concert or event, personal visit not sponsored by admissions office).**

   ◯ Yes ◯ No

7. **Did you take a campus tour (with the Admissions Office) before you selected SMU?**

   ◯ Yes ◯ No

8. **When choosing between colleges, was SMU…**

   ◯ First Choice ◯ Second Choice

   ◯ Third Choice ◯ Less than Third Choice

9. Select your current GPA; if you are a first year student use your high school GPA; if a transfer student in your first semester, use the GPA from your last school.

Last Semester:

◯ 4.0-3.6 ◯ 3.5-3.1 ◯ 3.0-2.6 ◯ 2.5-2.1 ◯ 2.0-1.6 ◯ 1.5-1.1 ◯ < 1.0 ◯ Unknown

Current Semester:

◯ 4.0-3.6 ◯ 3.5-3.1 ◯ 3.0-2.6 ◯ 2.5-2.1 ◯ 2.0-1.6 ◯ 1.5-1.1 ◯ < 1.0 ◯ Unknown

10. Select the group closest to your primary academic major:

- ◯ Undecided
- ◯ Creative Arts (includes fine and applied arts)
- ◯ Performing Arts (includes music and theater/dance)
- ◯ Humanities (includes languages, philosophy, religion)
- ◯ Biological Science (includes biology, life sciences, environmental science)
- ◯ Physical Science (includes physics, chemistry, mathematics, astronomy)
- ◯ Computer Science (includes data systems, drafting, programing)
- ◯ Social Sciences (includes anthropology, sociology, political science, psychology)
- ◯ Business (includes accounting, finance, marketing, management, international business)
- ◯ Communication (includes journalism, public relations, visual communication/design, interpersonal/organizational)
- ◯ Education (includes pre-K through grade 12, educational administration, health education, art and music education, higher education administration)
- ◯ Health and Human Services (includes counseling, nursing, medical administration)
- ◯ Professional (medicine, law, dentistry, veterinarian, physical/occupational therapy, architecture)
- ◯ Engineering (includes civil, mechanical, electrical, chemical, computer)
- ◯ Other Majors:_____

11. Select the race/ethnic background(s) you consider yourself: (Please note, this question is optional and data and responses will be anonymous and only used in aggregate).

- ◯ International Student (Non-US Citizen)
- ◯ American Indian or Alaska Native
- ◯ Asian
- ◯ Black or African American
- ◯ Hispanic or Latino(a)
- ◯ Native Hawaiian or Other Pacific Islander
- ◯ White
- ◯ Prefer Not to Say

12. Approximately how far is campus from your home (permanent) address?

- ◯ Less than ten miles
- ◯ 11-20 miles
- ◯ 21-40 miles
- ◯ 41-80 miles
- ◯ 81- 120 miles
- ◯ 121-300 miles
- ◯ 301-1000 miles
- ◯ More than 1000 miles

13. Please estimate the size of the town in which you were raised:

- ◯ Rural (less than 5,000 residents)
- ◯ Small-Suburban (Between 5,001 and 25,000 residents)
- ◯ Medium – Suburban (Between 25,001 and 75,000 residents)
- ◯ Large – Suburban (Between 75,001 and 200,000 residents)
- ◯ Metropolitan (Over 200,001 residents)
- ◯ I have no idea

Familiarity with Campus:

14. How would you rate your familiarity with the layout (where buildings are located; how to get from one location to another) on campus at SMU?

◯ Excellent ◯ Very Good ◯ Good ◯ Fair ◯ Poor

15. How difficult was it to become familiar with the layout (building locations) on SMU campus?

- ◯ Very Difficult
- ◯ Difficult
- ◯ Somewhat Difficult
- ◯ Neither Difficult nor Easy
- ◯ Somewhat Easy
- ◯ Easy
- ◯ Very Easy

16. Rank the items you use to know the layout of SMU campus by importance:

	1st – Most important	2nd	3rd	4th	5th – Least important
Signs (building signs, direction-pointing signs):	◯	◯	◯	◯	◯
Maps Displayed on Campus signs:	◯	◯	◯	◯	◯
Maps from Brochures of Internet:	◯	◯	◯	◯	◯
Landmarks:	◯	◯	◯	◯	◯
Asking people for help:	◯	◯	◯	◯	◯

17. How would you rate your ability to provide a lost student or parent with directions to a specific location on the SMU campus?

- ◯ Excellent
- ◯ Very Good
- ◯ Good
- ◯ Fair
- ◯ Poor

Time on Campus:

18. Select the mode of transportation you use most frequently when traveling on campus for classes:

- ◯ Walk
- ◯ Wheelchair
- ◯ Bicycle
- ◯ Drive (personal vehicle)
- ◯ Bus (campus or city transit)
- ◯ Other (please specify)_____

19. Do you live on or off campus?

◯ On-Campus (Residence Hall) ◯ Off-Campus

20. If you live off-campus, how many hours a week do you spend on campus?

◯ Less than 7 hours ◯ 6-16 hours ◯ 25-34 hours ◯ 35-44 hours ◯ More than 45 hours

21. In general, what makes a college or university campus attractive? Select all that apply:

◯ Campus entrances

◯ Campus landscaping (flowers and shrub gardens)

◯ Trees on campus

◯ Green spaces (examples: lawns and open fields) on campus

◯ Artistic sculptures, statues, and other outdoor artwork on campus

◯ Fountains or water features on campus

◯ Outdoor meeting space (examples: spaces outside the student center, outdoor amphitheaters)

◯ Informal meeting spaces (examples: picnic tables, areas to meet outside with friends)

◯ Benches and other outdoor seating on campus

◯ Campus lighting (examples: walkway and street lighting)

◯ Trash receptacles on campus

◯ Campus directional signs (examples: building signs, direction-pointing signs)

◯ Walkways/sidewalks on campus

◯ Ramps and other accessibility aids on campus

◯ Well-maintained outdoor campus environment

◯ Clean outdoor campus environment

◯ Campus grounds in general

◯ Exteriors of campus buildings

◯ Style of architecture

◯ Cohesive architecture (the same style throughout campus)

Attractiveness of Features on Campus:

22. Indicate your level of satisfaction with the attractiveness of the following elements at SMU

	Very Satisfied	Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Dissatisfied	Very Dissatisfied
Attractiveness of entrances to campus (gateways for vehicles or foot traffic):	◯	◯	◯	◯	◯	◯	◯
Attractiveness of exteriors of campus buildings:	◯	◯	◯	◯	◯	◯	◯
Attractiveness of the trees on campus:	◯	◯	◯	◯	◯	◯	◯
Attractiveness of campus green spaces (Lawns and open fields):	◯	◯	◯	◯	◯	◯	◯
Attractiveness of sculptures and statues on campus:	◯	◯	◯	◯	◯	◯	◯
Attractiveness of fountains or water features on campus:	◯	◯	◯	◯	◯	◯	◯
Attractiveness of outdoor formal campus meeting space (spaces outside the student center, outdoor amphitheaters, plazas):	◯	◯	◯	◯	◯	◯	◯
Attractiveness of informal meeting Spaces (picnic tables, places to meet Outside with friends):	◯	◯	◯	◯	◯	◯	◯
Attractiveness of benches and other outdoor seating on campus:	◯	◯	◯	◯	◯	◯	◯
Attractiveness of campus lighting (walkway and street lighting):	◯	◯	◯	◯	◯	◯	◯
Attractiveness of trash receptacles on campus:	◯	◯	◯	◯	◯	◯	◯
Attractiveness of cigarette disposal receptacles on campus:	◯	◯	◯	◯	◯	◯	◯
Attractiveness of walkways/sidewalks on campus:	◯	◯	◯	◯	◯	◯	◯

Amount of Features of Campus: Satisfaction Level

23. Indicate your level of satisfaction with the amount of the following elements at SMU

	Very Satisfied	Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Dissatisfied	Very Dissatisfied
Amount of campus landscaping (flowers and shrub gardens):	○	○	○	○	○	○	○
Amount of the trees on campus:	○	○	○	○	○	○	○
Amount of campus green spaces (lawns and open fields):	○	○	○	○	○	○	○
Amount of sculptures and statues on campus:	○	○	○	○	○	○	○
Amount of fountains or water features on campus:	○	○	○	○	○	○	○
Amount of outdoor formal campus meeting spaces (spaces outside the student center outdoor amphitheaters, plazas):	○	○	○	○	○	○	○
Amount of informal meeting spaces (picnic tables, places to meet outside with friends):	○	○	○	○	○	○	○
Amount of benches and other outdoor seating on campus:	○	○	○	○	○	○	○
Amount of campus lighting (walkway And street lighting):	○	○	○	○	○	○	○
Amount of trash receptacles on campus:	○	○	○	○	○	○	○
Amount of recycling receptacles on campus:	○	○	○	○	○	○	○
Amount of cigarette disposal receptacles on campus:	○	○	○	○	○	○	○
Amount of campus signs (building Signs, direction-pointing signs):	○	○	○	○	○	○	○
Amount of walkways/sidewalks on campus:	○	○	○	○	○	○	○
Amount of parking on campus:	○	○	○	○	○	○	○

Amount of Features on Campus: Quantities

24. Please indicate if you would like more, less, or no change in the amount of the following features at SMU:

	Much More	More	No Change is Necessary	Less	Much Less
Campus Landscaping (flowers and Shrub gardens):	◯	◯	◯	◯	◯
Trees:	◯	◯	◯	◯	◯
Green spaces (lawns and open fields):	◯	◯	◯	◯	◯
Fountains or water features on campus:	◯	◯	◯	◯	◯
Formal campus meeting space (spaces outside the student center, outdoor amphitheaters, plazas):	◯	◯	◯	◯	◯
Informal meeting spaces (picnic tables, places to meet outside with friends):	◯	◯	◯	◯	◯
Benches and other outdoor seating on campus:	◯	◯	◯	◯	◯
Campus lighting (walkway and street Lighting):	◯	◯	◯	◯	◯
Trash receptacles on campus:	◯	◯	◯	◯	◯
Recycling receptacles on campus:	◯	◯	◯	◯	◯
Cigarette disposal receptacles on campus:	◯	◯	◯	◯	◯
Campus signs (building signs, direction-pointing signs,):	◯	◯	◯	◯	◯
Campus way finding maps:	◯	◯	◯	◯	◯
Walkways/sidewalks on campus:	◯	◯	◯	◯	◯
Parking spots on campus:	◯	◯	◯	◯	◯
Wheelchair ramps:	◯	◯	◯	◯	◯

General Satisfaction with Features on Campus:

25. Please indicate your level of satisfaction with these elements at SMU:

	Very Satisfied	Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Dissatisfied	Very Dissatisfied
Ease of gaining entry to campus (vehicular or pedestrian via campus entrances):	◯	◯	◯	◯	◯	◯	◯
Ease of gaining entry to buildings on campus:	◯	◯	◯	◯	◯	◯	◯
Ease of getting around outdoor campus areas:	◯	◯	◯	◯	◯	◯	◯
Safety and stability of walkways and sidewalks on campus:	◯	◯	◯	◯	◯	◯	◯
Usefulness of campus lighting (walkway and street lighting):	◯	◯	◯	◯	◯	◯	◯
Organization of campus (location of buildings, green space, open space, and walkways):	◯	◯	◯	◯	◯	◯	◯
Overall maintenance of the outdoor campus environment:	◯	◯	◯	◯	◯	◯	◯
Cleanliness of outdoor campus areas:	◯	◯	◯	◯	◯	◯	◯
Level of care shown in campus design in general:	◯	◯	◯	◯	◯	◯	◯
Cohesiveness (similarity) of exteriors of campus building:	◯	◯	◯	◯	◯	◯	◯
Usefulness/readability of campus signs (building signs, direction-pointing signs):	◯	◯	◯	◯	◯	◯	◯
Placement of campus signs (building signs, direction-pointing signs):	◯	◯	◯	◯	◯	◯	◯
Placement of parking on campus:	◯	◯	◯	◯	◯	◯	◯

Importance of Campus Features (Part 1 of 2):

This question focuses in on how important these elements of the outdoor campus at SMU are to you.

26. Please indicate how important the following elements are to you on the SMU campus:

	Very Important	Important	Somewhat Important	Neutral	Somewhat Unimportant	Unimportant	Very Unimportant
The presence of attractive campus entrances:	◯	◯	◯	◯	◯	◯	◯
The attractiveness of the exteriors of campus buildings:	◯	◯	◯	◯	◯	◯	◯
The cohesiveness (similarity) of the exteriors of campus buildings:	◯	◯	◯	◯	◯	◯	◯
The presence of campus landscaping (flowers and shrub gardens):	◯	◯	◯	◯	◯	◯	◯
The presence of trees on campus:	◯	◯	◯	◯	◯	◯	◯
The presence of green spaces (lawns, open fields) on campus:	◯	◯	◯	◯	◯	◯	◯
The presence of sculptures, statues, and other outdoor artwork on campus:	◯	◯	◯	◯	◯	◯	◯
The presence of fountains or water features on campus:	◯	◯	◯	◯	◯	◯	◯
Presence of outdoor formal campus meeting space (spaces outside the student center, amphitheaters, plazas):	◯	◯	◯	◯	◯	◯	◯
The presence of outdoor informal meeting spaces (picnic tables, places to meet outside with friends):	◯	◯	◯	◯	◯	◯	◯
The presence of benches and other outdoor seating on campus:	◯	◯	◯	◯	◯	◯	◯

Importance of Campus Features (Part 2 of 2):

This question (a continuation of the last part) focused in on how important these elements of the outdoor campus at SMU are to you.

27. Please indicate how important the following elements are to you on the SMU campus:

	Very Important	Important	Somewhat Important	Neutral	Somewhat Unimportant	Unimportant	Very Unimportant
The presence of walkways/sidewalks on campus:	◯	◯	◯	◯	◯	◯	◯
The presence of campus lighting (walkway and street lighting):	◯	◯	◯	◯	◯	◯	◯
The presence of trash receptacles on campus:	◯	◯	◯	◯	◯	◯	◯
The presence of recycling receptacles on campus:	◯	◯	◯	◯	◯	◯	◯
The presence of cigarette disposal receptacles on campus:	◯	◯	◯	◯	◯	◯	◯
The presence of campus directional signs (building signs, direction-pointing signs):	◯	◯	◯	◯	◯	◯	◯
The presence of ramps and other accessibility aids on campus (curb cuts, lifts):	◯	◯	◯	◯	◯	◯	◯
The presence of parking on campus:	◯	◯	◯	◯	◯	◯	◯
The overall maintenance of the outdoor physical campus environment:	◯	◯	◯	◯	◯	◯	◯
The overall cleanliness of the outdoor physical campus environment:	◯	◯	◯	◯	◯	◯	◯
The level of care shown in the design of campus grounds in general:	◯	◯	◯	◯	◯	◯	◯

Opinions/Perceptions About Campus (Part 1 of 2):

Please indicate the extent to which you agree or disagree with the following prompts when thinking about outdoor campus at SMU.

28. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
When I first saw the campus, I thought "this is the right school for me."	○	○	○	○	○	○	○

29. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
The layout of this campus confuses me.	○	○	○	○	○	○	○

30. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
This campus is visually interesting.	○	○	○	○	○	○	○

31. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
I consider this campus attractive.	○	○	○	○	○	○	○

32. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
The outdoor campus environment is well-maintained.	○	○	○	○	○	○	○

33. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
The outdoor environment of this campus meets my needs.	○	○	○	○	○	○	○

34. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
I am comfortable (feel at home) with the outdoor environment of this campus.	○	○	○	○	○	○	○

35. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
The outdoor environment of this campus makes me feel safe.	○	○	○	○	○	○	○

36. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
The outdoor environment of this campus provides sufficient space for outdoor recreation activity.	○	○	○	○	○	○	○

37. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
I believe the outdoor campus environment Shows a sense of campus personality.	○	○	○	○	○	○	○

38. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
The outdoor environment at this campus made me more interested in attending this school.	○	○	○	○	○	○	○

39. Please indicate your level of agreement with this statement:

	Strongly Agree	Agree	Somewhat Agree	Neither	Somewhat Disagree	Disagree	Strongly Disagree
The outdoor environment at this campus makes me want to continue to attend this school.	○	○	○	○	○	○	○

40. When you want to relax, where on campus do you go?_____

_____

41. What features in this area helps you relax?_____

_____

42. Which part of campus do you like the most?_____

_____

43. Which part of campus do you like the least?_____

_____

44. Which part of campus do you use for studying the most?_____

_____

45. Which part of campus do you connect with the most?_____

_____

46. I use nature to relax during studies:

◯ Yes ◯ No

47. Campus landscape is essential for my well-being and mental health:

◯ Yes ◯ No

Appendix B: Tell Me About Yourself

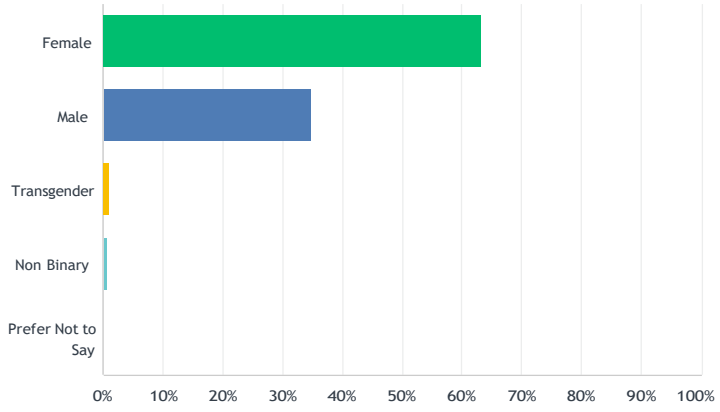
Biographic Data

Q1 How Old will you be on December 31 of this year?

19 Years	20 Years	21 Years	22 Years	23 Years	24 Years	26 Years	57 Years
24 14%	54 31%	41 23%	41 23%	9 5%	2 1.5%	3 2.0%	1 0.5%

Q2 What Gender do you consider yourself?

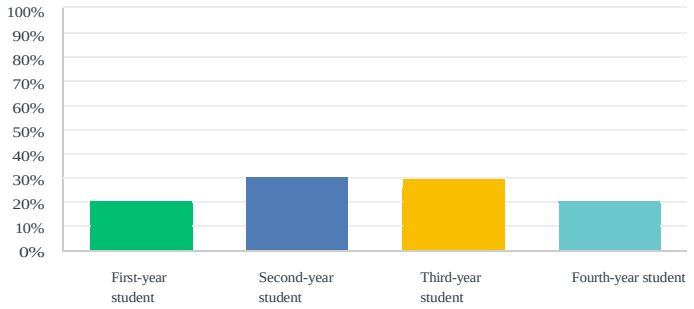
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
Female	63.43%	111
Male	34.86%	61
Transgender	1.14%	2
Non Binary	0.57%	1
Prefer Not to Say	0.00%	0

Q3 What is your current class Standing

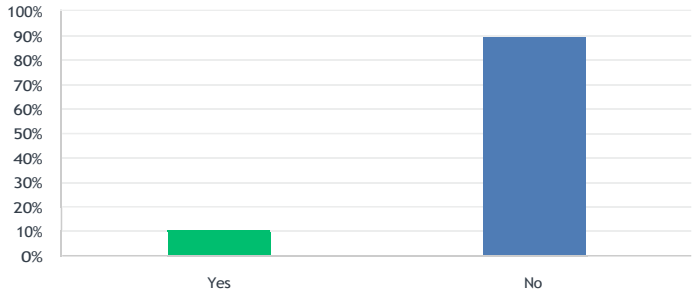
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
First-year student	22.29%	39
Second-year student	30.86%	54
Third-year student	25.71%	45
Fourth-year student	21.14%	37

Q4 Did you come to SMU as an undergraduate transfer student (did you attend college after high school somewhere else before coming to this university)?

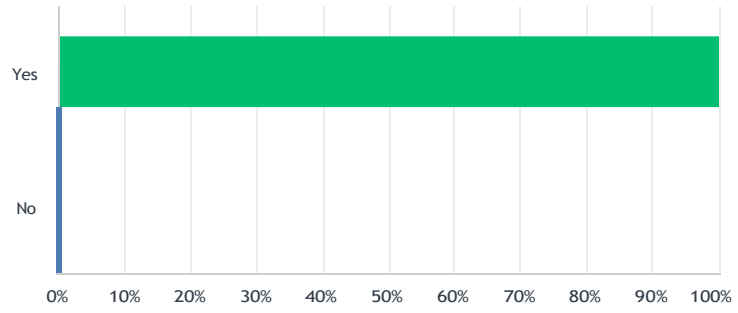
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	10.29%	18
No	89.71%	157
TOTAL		175

Q5 Are you a full-time or part-time student (to be full-time, you must be enrolled in twelve or more undergraduate credit hours)?

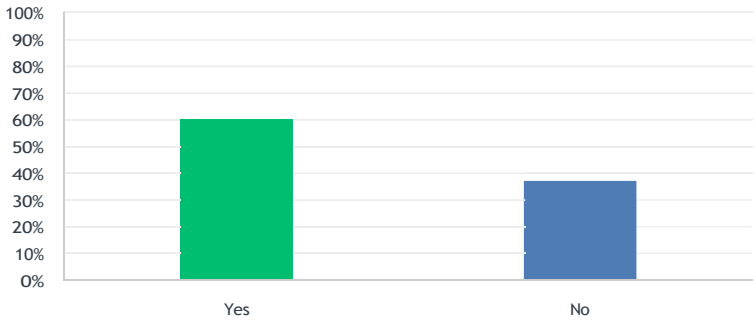
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	99.43%	174
No	0.57%	1
TOTAL		175

Q6 Did you visit the campus informally before you selected SMU? (Examples include Little Siblings weekend, on-campus concert or event, personal visit not sponsored by admissions office).

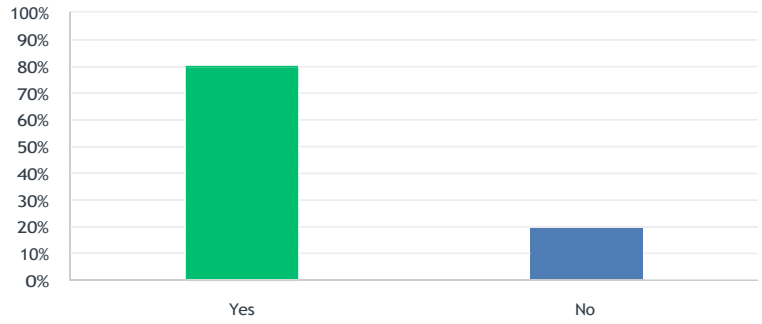
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	62.86%	110
No	37.14%	65
TOTAL		175

Q7 Did you take a campus tour (with the Admissions Office) before you selected SMU?

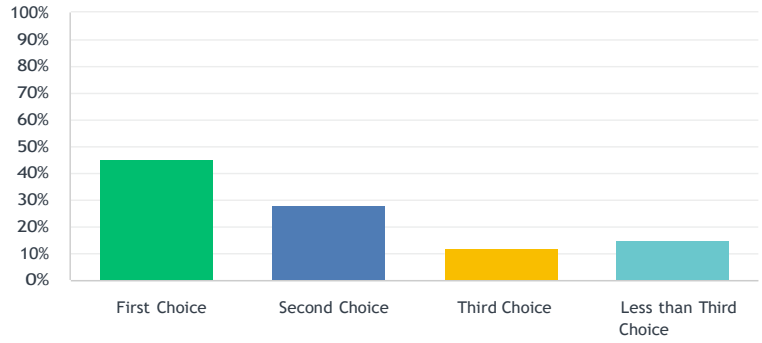
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	81.14%	142
No	18.86%	33
TOTAL		175

Q8 When choosing between colleges, was SMU...

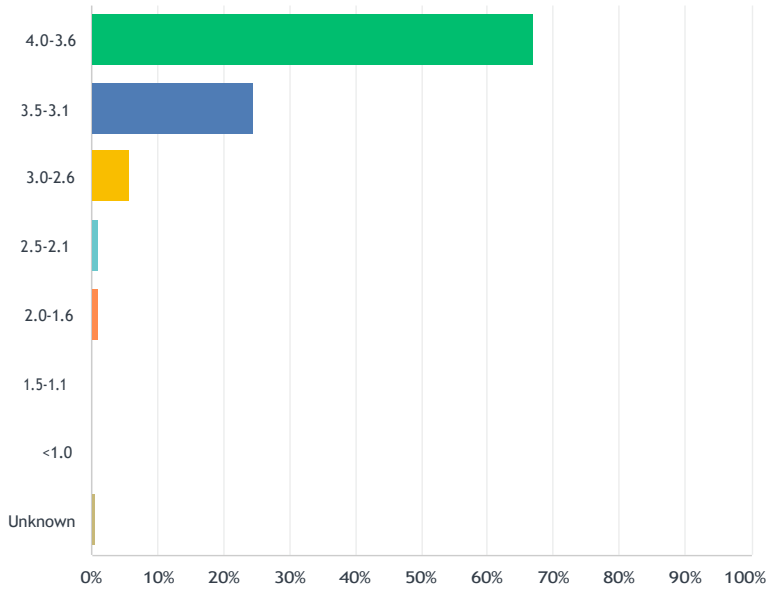
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
First Choice	45.14%	79
Second Choice	28.00%	49
Third Choice	12.00%	21
Less than Third Choice	14.86%	26

Q9 Select your current GPA; if you are a first year student use your high school GPA; if a transfer student in your first semester, use the GPA from your last school

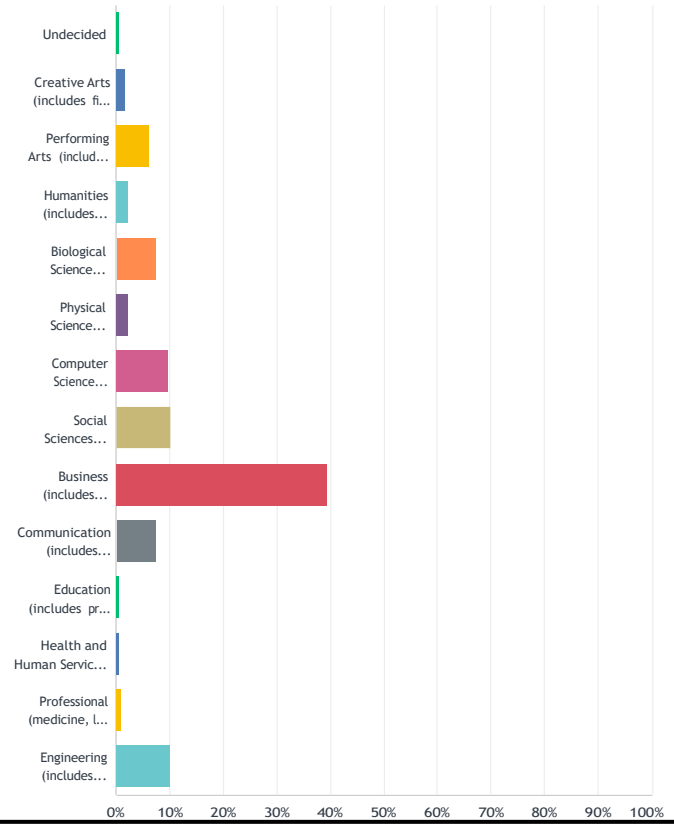
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
4.0-3.6	66.86%	117
3.5-3.1	24.57%	43
3.0-2.6	5.71%	10
2.5-2.1	1.14%	2
2.0-1.6	1.14%	2
1.5-1.1	0.00%	0
<1.0	0.00%	0
Unknown	0.57%	1
TOTAL		175

Q10 Select the group closest to your primary academic major:

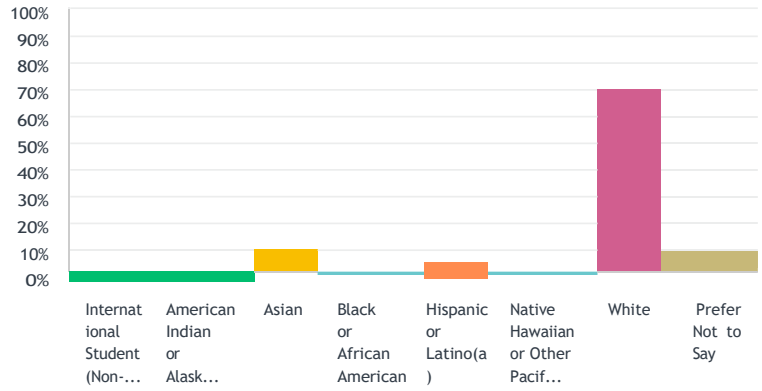
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
Undecided	0.57%	1
Creative Arts (includes fine and applied arts)	1.71%	3
Performing Arts (includes music and theater and dance)	6.29%	11
Humanities (includes languages, philosophy, religion)	2.29%	4
Biological Science (includes biology, life sciences, environmental science)	7.43%	13
Physical Science (includes physics, chemistry, mathematics, astronomy)	2.29%	4
Computer Science (includes data systems, drafting, programing)	9.71%	17
Social Sciences (includes anthropology, sociology, political science, psychology)	10.29%	18
Business (includes accounting, finance, marketing, management, international business)	39.43%	69
Communication (includes journalism, public relations visual communication/design, interpersonal/organizational)	7.43%	13
Education (includes pre-K through grade 12, educational administration, health education, art and music education, higher education administration)	0.57%	1
Health and Human Services (includes counseling, nursing, medical administration)	0.57%	1
Professional (medicine, law, dentistry, veterinarian, physical/occupational therapy, architecture)	1.14%	2
Engineering (includes civil, mechanical, electrical, chemical, computer)	10.29%	18
TOTAL		175

Q11 Select the race/ethnic background(s) you consider yourself: (Please note, this question is optional and data and responses will be anonymous and only used in aggregate.

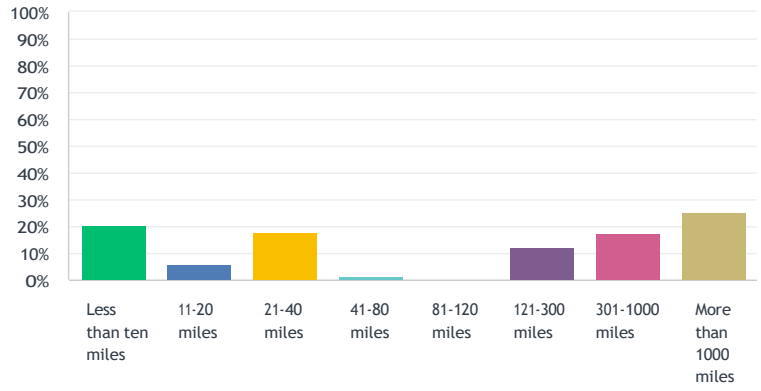
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
International Student (Non-US Citizen)	2.86%	5
American Indian or Alaska Native	1.14%	2
Asian	11.43%	20
Black or African American	1.14%	2
Hispanic or Latino(a)	6.86%	12
Native Hawaiian or Other Pacific Islander	0.57%	1
White	71.43%	125
Prefer Not to Say	4.57%	8
Total		175

Q12 Approximately how far is campus from your home (permanent) address?

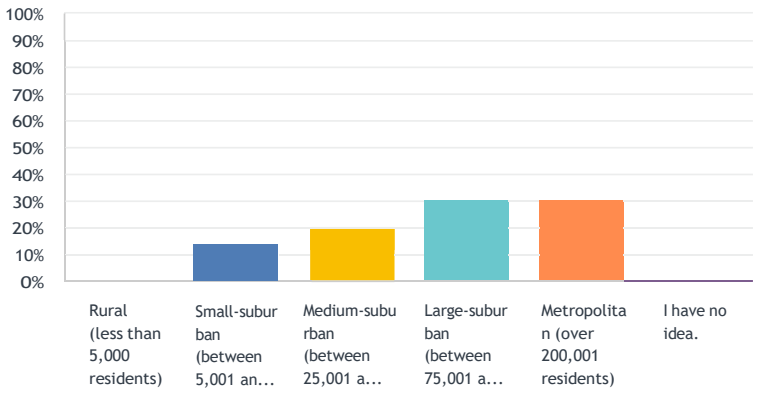
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
Less than ten miles	20.57%	36
11-20 miles	5.71%	10
21-40 miles	17.71%	31
41-80 miles	1.71%	3
81-120 miles	0.00%	0
121-300 miles	12.00%	21
301-1000 miles	17.14%	30
More than 1000 miles	25.14%	44
TOTAL		175

Q13 Please estimate the size of the town in which you were raised:

Answered: 175 Skipped: 0

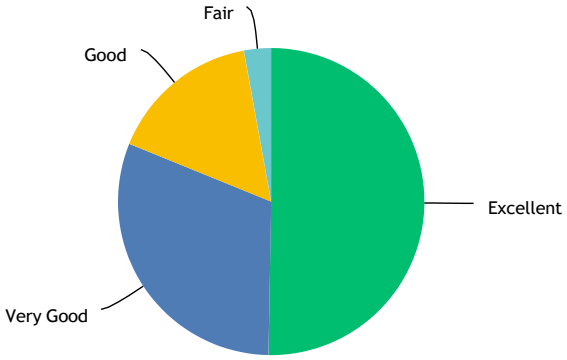


ANSWER CHOICES	RESPONSES	
Rural (less than 5,000 residents)	0.57%	1
Small-suburban (between 5,001 and 25,000 residents)	14.29%	25
Medium-suburban (between 25,001 and 75,000 residents)	18.29%	32
Large-suburban (between 75,001 and 200,000 residents)	32.00%	56
Metropolitan (over 200,001 residents)	30.86%	54
I have no idea.	4.00%	7
TOTAL		175

Appendix C: Familiarity with Campus

Q14 How would you rate your familiarity with the layout (where buildings are located; how to get from one location to another) on SMU campus?

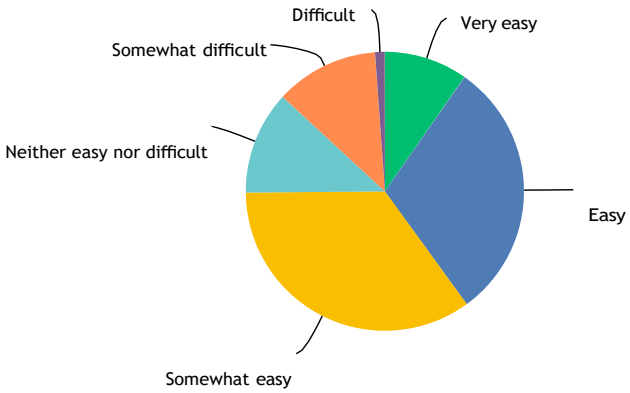
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
Excellent	50.29%	88
Very Good	30.86%	54
Good	16.00%	28
Fair	2.86%	5
Poor	0.00%	0
TOTAL		175

Q15 How difficult was it to become familiar with the layout (building locations) on SMU campus?

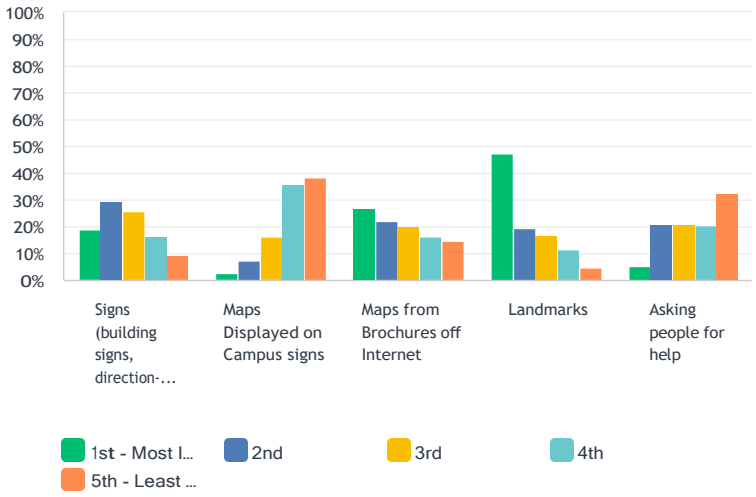
Answered: 175 Skipped: 0



ANSWER CHOICES	RESPONSES	
Very easy	9.71%	17
Easy	30.29%	53
Somewhat easy	34.86%	61
Neither easy nor difficult	12.00%	21
Somewhat difficult	12.00%	21
Difficult	1.14%	2
Very difficult	0.00%	0
TOTAL		175

Q16 Rank the items you use to know the layout of SMU campus by importance:

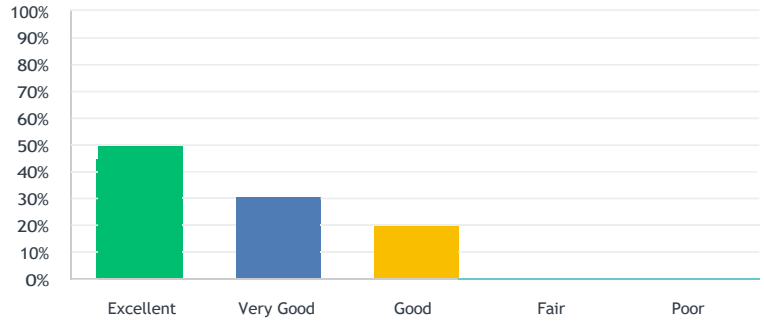
Answered: 175 Skipped: 0



	1ST - MOST IMPORTANT	2ND	3RD	4TH	5TH - LEAST IMPORTANT	TOTAL
Signs (building signs, direction-pointing signs)	19.19% 33	29.65% 51	25.58% 44	16.28% 28	9.30% 16	172
Maps Displayed on Campus signs	2.41% 4	7.23% 12	16.27% 27	35.54% 59	38.55% 64	166
Maps from Brochures off Internet	26.90% 46	22.22% 38	19.88% 34	16.37% 28	14.62% 25	171
Landmarks	47.37% 81	19.30% 33	16.96% 29	11.70% 20	4.68% 8	171
Asking people for help	5.23% 9	20.93% 36	20.93% 36	20.35% 35	32.56% 56	172

Q17 How would you rate your ability to provide a lost student or parent with directions to a specific location on the SMU campus?

Answered: 175 Skipped: 0

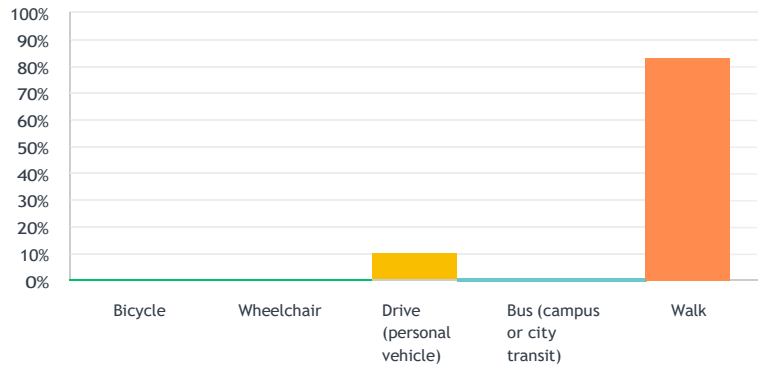


ANSWER CHOICES	RESPONSES	
Excellent	44.57%	78
Very Good	31.43%	55
Good	18.29%	32
Fair	5.14%	9
Poor	0.57%	1
TOTAL		175

Appendix D: Time on Campus

Q18 Select the mode of transportation you use most frequently when traveling on campus for classes.

Answered: 170 Skipped: 5

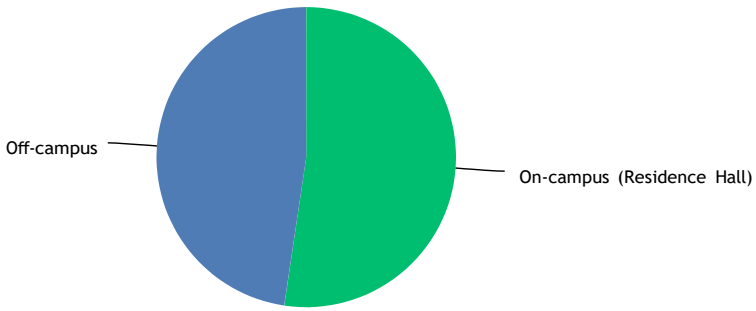


ANSWER CHOICES	RESPONSES	
Bicycle	3.53%	6
Wheelchair	0.00%	0
Drive (personal vehicle)	11.76%	20
Bus (campus or city transit)	1.18%	2
Walk	83.53%	142
TOTAL		170

#	OTHER (PLEASE SPECIFY)	DATE
1	bike	3/22/2022 10:34 PM
2	onewheel	3/22/2022 10:21 AM
3	Longboard	3/22/2022 1:25 AM
4	Scooter (Manual)	3/22/2022 12:55 AM
5	Electric scooter	3/22/2022 12:29 AM

Q19 Do you live on or off campus?

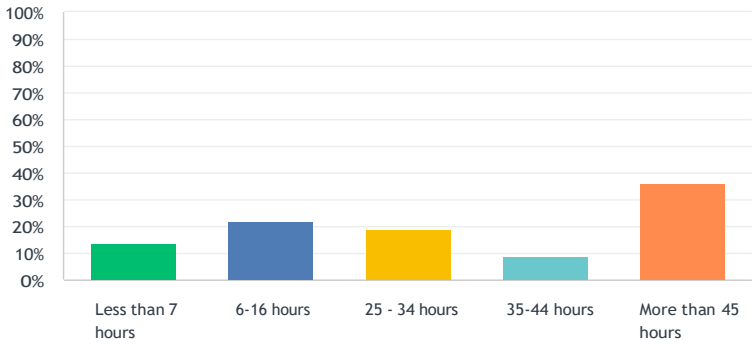
Answered: 170 Skipped: 5



ANSWER CHOICES	RESPONSES	
On-campus (Residence Hall)	52.35%	89
Off-campus	47.65%	81
TOTAL		170

Q20 If you life off-campus, how many hours a week do you spend on campus?

Answered: 170 Skipped: 5



ANSWER CHOICES	RESPONSES	
Less than 7 hours	13.53%	23
6-16 hours	22.35%	38
25 - 34 hours	18.82%	32
35-44 hours	8.82%	15
More than 45 hours	36.47%	62
TOTAL		170

Appendix E: Attractiveness of Features on Campus

Q21 In general, what makes a college or university campus attractive? Select all that apply.

Answered: 170 Skipped: 5

ANSWER CHOICES	RESPONSES	
Campus landscaping (flowers and shrub gardens)	85.29%	145
Campus Entrances	50.00%	85
Trees on campus	81.76%	139
Green spaces (examples: lawns and open fields) on campus	89.41%	152
Artistic sculptures, statues, and other outdoor artwork on campus	44.12%	75
Fountains or water features on campus	66.47%	113
Outdoor meeting space (examples: spaces outside the student center, outdoor amphitheaters)	58.24%	99
Informal meeting spaces (examples: picnic tables, areas to meet outside with friends)	60.59%	103
Benches and other outdoor seating on campus	45.29%	77
Campus lighting (examples: walkway and street lighting)	64.12%	109
Trash receptacles on campus	24.12%	41
Campus directional signs (examples: building signs, direction-pointing signs)	21.76%	37
Walkways/sidewalks on campus	61.76%	105
Ramps and other accessibility aids on campus	22.35%	38
Well-maintained outdoor campus environment	75.29%	128
Clean outdoor campus environment	75.88%	129
Campus grounds in general	53.53%	91
Exteriors of campus buildings	66.47%	113
Style of architecture	75.29%	128
Cohesive architecture (the same style throughout campus)	62.94%	107
Total Respondents: 170		

Q22 Indicate your level of satisfaction with the attractiveness of the following elements at SMU.

Answered: 163 Skipped: 12

	Very Satisfied	Satisfied	Somewhat Satisfied	Neutral	Somewht Dissatisfied	Dissatisfied	Very Dissatisfied
Attractiveness of entrances to campus (gateways for vehicles or foot traffic)	33.74% 55	36.20% 59	16.56% 27	10.43% 17	2.45% 4	0.61% 1	0.00% 0
Attractiveness of exteriors of campus buildings	47.24% 77	36.81% 60	11.04% 18	3.68% 6	1.23% 2	0.00% 0	0.00% 0
Attractiveness of the trees on campus	64.81% 105	24.69% 40	7.41% 12	1.23% 2	1.85% 3	0.00% 0	0.00% 0
Attractiveness of campus green spaces (lawns and open fields)	58.90% 96	26.38% 43	10.43% 17	1.84% 3	1.23% 2	0.61% 1	0.61% 1
Attractiveness of sculptures and statues on campus	25.93% 42	24.69% 40	19.75% 32	19.75% 32	6.79% 11	2.47% 4	0.62% 1
Attractiveness of fountains or water features on campus	44.44% 72	26.54% 43	14.20% 23	8.02% 13	4.94% 8	0.62% 1	1.23% 2
Attractiveness of outdoor formal campus meeting space (spaces outside the student center, outdoor amphitheaters, plazas)	29.63% 48	25.93% 42	19.75% 32	10.49% 17	9.88% 16	3.09% 5	1.23% 2
Attractiveness of informal meeting spaces (picnic tables, places to meet outside with friends)	20.99% 34	22.22% 36	19.14% 31	10.49% 17	17.90% 29	7.41% 12	1.85% 3
Attractiveness of benches and other outdoor seating on campus	21.60% 35	27.16% 44	21.60% 35	14.20% 23	11.11% 18	3.70% 6	0.62% 1
Attractiveness of campus lighting (walkway and street lighting)	21.74% 35	27.95% 45	18.63% 30	9.94% 16	13.04% 21	4.97% 8	3.73% 6
Attractiveness of trash receptacles on campus	30.86% 50	30.25% 49	16.05% 26	13.58% 22	5.56% 9	1.85% 3	1.85% 3
Attractiveness of cigarette disposal receptacles on campus	18.63% 30	22.36% 36	9.94% 16	39.13% 63	7.45% 12	1.86% 3	0.62% 1
Attractiveness of Walkways/sidewalks On Campus	36.65% 59	29.19% 47	18.63% 30	8.70% 14	4.97% 8	1.86% 3	0.00% 0

Appendix F: Amount of Features on Campus

Q23 Indicate your level of satisfaction with the amount of the following elements at SMU.

Answered: 154 Skipped: 21

	Very Satisfied	Satisfied	Somewhat Satisfied	Neutral	Somewht Dissatisfied	Dissatisfied	Very Dissatisfied
Amount of campus landscaping (flowers and shrub gardens)	54.55% 84	31.82% 49	7.79% 12	2.60% 4	1.30% 2	1.95% 3	0.00% 0
Amount of the trees on campus	64.00% 96	25.33% 38	6.00% 9	1.33% 2	1.33% 2	0.67% 1	1.33% 2
Amount of campus green spaces (lawns and open fields)	54.30% 82	31.79% 48	6.62% 10	1.99% 3	2.65% 4	1.99% 3	0.66% 1
Amount of fountains or water features on campus	48.68% 74	32.24% 49	7.24% 11	5.26% 8	3.95% 6	1.97% 3	0.66% 1
Amount of outdoor formal campus meeting spaces (spaces outside the student center outdoor amphitheaters, plazas)	27.63% 42	25.00% 38	16.45% 25	13.16% 20	13.82% 21	2.63% 4	1.32% 2
Amount of informal meeting spaces (picnic tables, places to meet outside with friends)	20.39% 31	26.32% 40	15.79% 24	7.89% 12	16.45% 25	9.87% 15	3.29% 5
Amount of benches and other outdoor seating on campus	23.18% 35	29.14% 44	17.88% 27	10.60% 16	11.92% 18	4.64% 7	2.65% 4
Amount of campus lighting (walkway and street lighting)	20.39% 31	30.92% 47	13.82% 21	11.84% 18	11.84% 18	7.24% 11	3.95% 6
Amount of trash receptacles on campus	34.87% 53	34.87% 53	9.87% 15	15.79% 24	2.63% 4	0.66% 1	1.32% 2
Amount of recycling receptacles on campus	23.68% 36	21.05% 32	9.21% 14	13.82% 21	15.13% 23	7.89% 12	9.21% 14
Amount of cigarette disposal receptacles on campus	22.37% 34	21.71% 33	5.92% 9	44.08% 67	4.61% 7	1.32% 2	0.00% 0
Amount of walkways/sidewalks on campus	36.84% 56	39.47% 60	11.84% 18	5.26% 8	4.61% 7	1.97% 3	0.00% 0
Amount of parking On Campus	10.60% 16	7.95% 12	3.31% 5	2.65% 4	9.93% 15	17.22% 26	48.34% 73

Q24 Please indicate if you would like more, less, or no change in the amount of the following features at SMU.

Answered: 154 Skipped: 21

	MUCH MORE	MORE	NO CHANGE IS NECESSARY	LESS	MUCH LESS	TOTAL
Campus spaces (lawns and open fields)	6.54% 10	28.10% 43	64.71% 99	0.65% 1	0.00% 0	153
Fountains or water features on campus	5.84% 9	15.58% 24	70.13% 108	6.49% 10	1.95% 3	154
Formal campus meeting spaces (spaces outside the student center, outdoor amphitheaters, plazas)	9.87% 15	40.13% 61	49.34% 75	0.66% 1	0.00% 0	152
Informal meeting spaces (picnic tables, places to meet outside with friends)	23.68% 36	55.26% 84	21.05% 32	0.00% 0	0.00% 0	152
Benches and other outdoor seating on campus	13.73% 21	47.06% 72	38.56% 59	0.65% 1	0.00% 0	153
Campus lighting (walkway and street lighting)	25.66% 39	34.21% 52	40.13% 61	0.00% 0	0.00% 0	152
Trash receptacles on campus	3.29% 5	13.16% 20	78.29% 119	5.26% 8	0.00% 0	152
Recycling receptacles on campus	19.48% 30	30.52% 47	46.75% 72	3.25% 5	0.00% 0	154
Cigarette disposal receptacles on campus	1.96% 3	6.54% 10	77.12% 118	10.46% 16	3.92% 6	153
Campus signs (building sighs, direction-pointing signs)	7.84% 12	39.22% 60	49.02% 75	3.92% 6	0.00% 0	153
Campus way finding maps	7.19% 11	40.52% 62	49.67% 76	2.61% 4	0.00% 0	153
Walkways/sidewalks on campus	4.58% 7	18.95% 29	75.82% 116	0.65% 1	0.00% 0	153
Parking spots on campus	75.16% 115	11.11% 17	11.76% 18	0.00% 0	1.96% 3	153
Wheelchair ramps	14.29% 22	32.47% 50	50.00% 77	1.30% 2	1.95% 3	154

Appendix G: General Satisfaction with Features on Campus

Q25 Please indicate your level of satisfaction with these elements at SMU.

Answered: 147 Skipped: 28

	VERY SATISFIED	SATISFIED	SOMEWHAT SATISFIED	NEUTRAL	SOMEWHAT DISSATISFIED	DISSATISFIED	VERY DISSATISFIED	TO
Ease of gaining entry to campus (vehicular or pedestrian via campus entrances)	29.93% 44	34.01% 50	15.65% 23	8.84% 13	8.16% 12	2.72% 4	0.68% 1	
Ease of gaining entry to buildings on campus	31.51% 46	43.84% 64	15.75% 23	6.85% 10	0.68% 1	1.37% 2	0.00% 0	
Ease of getting around outdoor campus areas (without construction)	30.14% 44	42.47% 62	13.01% 19	6.16% 9	5.48% 8	2.05% 3	0.68% 1	
Safety and stability of walkways and sidewalks on campus	36.30% 53	39.04% 57	10.96% 16	4.79% 7	6.85% 10	2.05% 3	0.00% 0	
Usefulness of campus lighting (walkway and street lighting)	20.55% 30	28.77% 42	18.49% 27	13.01% 19	10.27% 15	6.16% 9	2.74% 4	
Organization of campus (location of building, green space, open space, and walkways)	35.62% 52	39.73% 58	13.01% 19	7.53% 11	2.74% 4	1.37% 2	0.00% 0	
Overall maintenance of the outdoor campus environment	48.97% 71	33.10% 48	11.03% 16	4.83% 7	1.38% 2	0.69% 1	0.00% 0	
Cleanliness of outdoor campus areas	44.83% 65	39.31% 57	11.03% 16	1.38% 2	2.76% 4	0.69% 1	0.00% 0	
Level of care shown in campus design in general	53.10% 77	33.10% 48	6.21% 9	4.14% 6	2.07% 3	0.69% 1	0.69% 1	
Cohesiveness (similarity) of exteriors of campus building	57.24% 83	27.59% 40	7.59% 11	5.52% 8	2.07% 3	0.00% 0	0.00% 0	
Usefulness/readability of campus signs (building signs, direction-pointing signs)	19.86% 29	33.56% 49	18.49% 27	16.44% 24	10.27% 15	0.68% 1	0.68% 1	
Placement of campus signs (building signs, direction-pointing signs)	17.12% 25	28.08% 41	22.60% 33	16.44% 24	12.33% 18	2.74% 4	0.68% 1	
Placement of parking on campus	8.90% 13	16.44% 24	15.07% 22	12.33% 18	14.38% 21	10.96% 16	21.92% 32	

Appendix H: Importance of Campus Features

Q26 Please indicate how important the following elements are to you on the SMU campus.

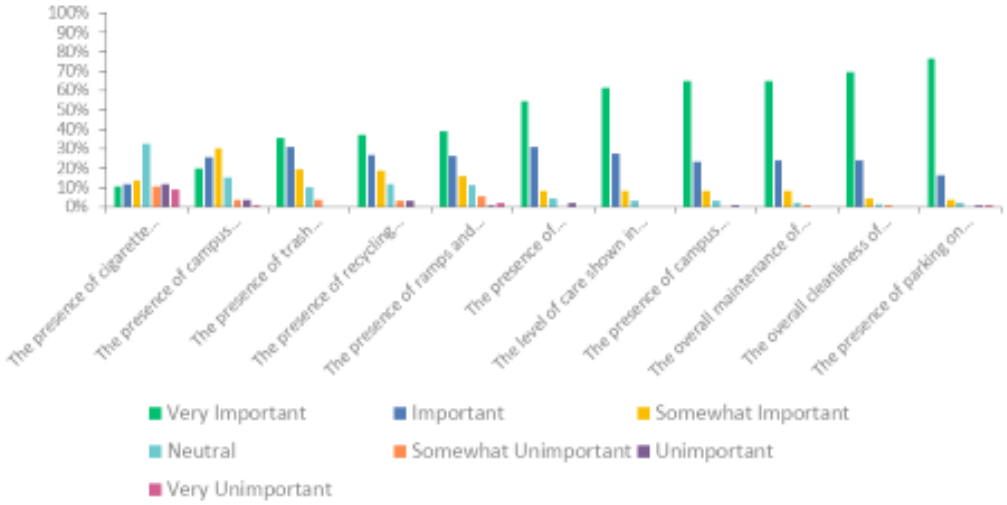
Answered: 141 Skipped: 34

	VERY IMPORTANT	IMPORTANT	SOMEWHAT IMPORTANT	NEUTRAL	SOMEWHAT UNIMPORTANT	UNIMPORTANT	VERY UNIMPORTANT	TO
The presence of attractive campus entrances	43.26% 61	22.70% 32	22.70% 32	8.51% 12	2.13% 3	0.71% 1	0.00% 0	
The attractiveness of the exteriors of campus buildings	45.39% 64	35.46% 50	12.77% 18	4.26% 6	2.13% 3	0.00% 0	0.00% 0	
The cohesiveness (similarity) of the exteriors of campus buildings	37.14% 52	27.86% 39	17.14% 24	10.00% 14	6.43% 9	1.43% 2	0.00% 0	
The presence of campus landscaping (flowers and shrub gardens)	45.00% 63	30.71% 43	17.14% 24	5.71% 8	1.43% 2	0.00% 0	0.00% 0	
The presence of trees on campus	61.43% 86	27.14% 38	7.14% 10	3.57% 5	0.00% 0	0.71% 1	0.00% 0	
The presence of green spaces (lawns, open fields) on campus	56.43% 79	31.43% 44	7.86% 11	4.29% 6	0.00% 0	0.00% 0	0.00% 0	
The presence of sculptures, statues, and other outdoor artwork on campus	15.71% 22	22.14% 31	32.86% 46	17.86% 25	8.57% 12	1.43% 2	1.43% 2	
The presence of fountains or water features on campus	18.57% 26	27.86% 39	28.57% 40	13.57% 19	6.43% 9	2.86% 4	2.14% 3	
Presence of outdoor formal campus meeting space (spaces outside the student center, amphitheaters, plazas)	27.86% 39	31.43% 44	25.71% 36	11.43% 16	2.86% 4	0.71% 1	0.00% 0	
The presence of outdoor informal meeting spaces (picnic tables, places to meet outside with friends)	43.57% 61	30.71% 43	15.71% 22	5.71% 8	3.57% 5	0.71% 1	0.00% 0	
The presence of benches and other outdoor	34.29% 48	34.29% 48	20.00% 28	9.29% 13	1.43% 2	0.71% 1	0.00% 0	

Seating on campus

Q27: Please indicate how important the following elements are to you on the SMU campus.

Answered: 136 Skipped: 39



Q27: Please indicate how important the following elements are to you on the SMU campus.

Answered: 136 Skipped: 39

	VERY IMPORTANT	IMPORTANT	SOMEWHAT IMPORTANT	NEUTRAL	SOMEWHAT UNIMPORTANT	UNIMPORTANT	VERY UNIMPORTANT	TOTAL
The presence of cigarette disposal receptacles on campus	10.45% 14	11.94% 16	13.43% 18	32.84% 44	10.45% 14	11.94% 16	8.96% 12	134
The presence of campus directional signs (building signs, direction-pointing)	20.0% 27	25.93% 35	30.37% 41	15.56% 21	3.70% 5	3.70% 5	0.74% 1	135
The presence of trash receptacles on campus	35.56% 48	31.11% 42	19.26% 26	10.37% 14	3.70% 5	0% 0	0% 0	135
The presence of recycling receptacles on campus	37.04% 50	26.67% 36	18.52% 25	11.85% 16	2.96% 4	2.96% 4	0% 0	135
The presence of ramps and other accessibility aids on campus (curb cuts, lifts)	38.81% 52	26.12% 35	15.67% 21	11.19% 15	5.22% 7	0.75% 1	2.24% 3	134
The presence of walkways/sidewalks	54.41% 74	30.88% 42	8.09% 11	4.41% 6	0% 0	2.21% 3	0% 0	136

Q27: Please indicate how important the following elements are to you on the SMU campus.

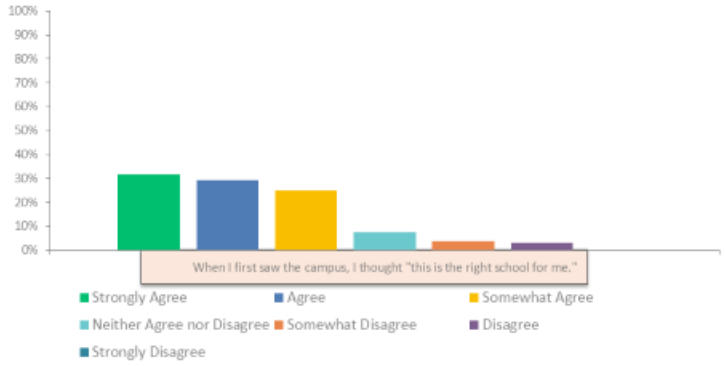
Answered: 136 Skipped: 39

	VERY IMPORTANT	IMPORTANT	SOMEWHAT IMPORTANT	NEUTRAL	SOMEWHAT UNIMPORTANT	UNIMPORTANT	VERY UNIMPORTANT	TOTAL
The level of care shown in the design of campus grounds in general	61.48% 83	27.41% 37	8.15% 11	2.96% 4	0% 0	0% 0	0% 0	135
The presence of campus lighting (walkway and street lighting)	64.71% 88	23.53% 32	8.09% 11	2.94% 4	0% 0	0.74% 1	0% 0	136
The overall maintenance of the outdoor physical campus environment	65.19% 88	23.70% 32	8.15% 11	2.22% 3	0.74% 1	0% 0	0% 0	135
The overall cleanliness of the outdoor physical campus environment	69.63% 94	23.70% 32	4.44% 6	1.48% 2	0.74% 1	0% 0	0% 0	135
The presence of parking on campus	76.30% 103	16.30% 22	3.70% 5	2.22% 3	0% 0	0.74% 1	0.74% 1	135

Appendix I: Opinions/Perceptions About Campus

Q28: Please indicate your level of aggreement with this statement.

Answered: 133 Skipped: 42



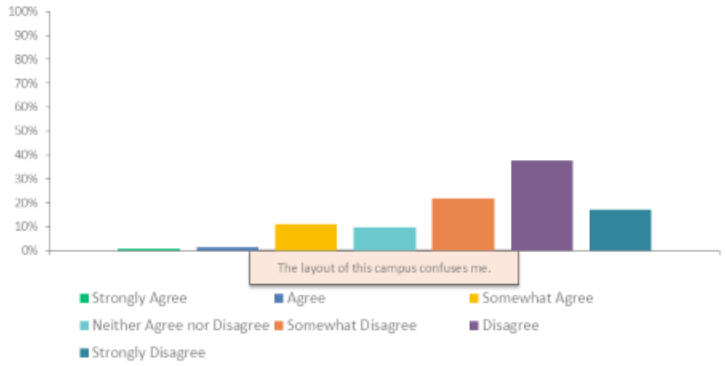
Q28: Please indicate your level of aggreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
When I first saw the campus, I thought "this is the right school for me."	31.58% 42	29.32% 39	24.81% 33	7.52% 10	3.76% 5	3.01% 4	0% 0	133

Q29: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



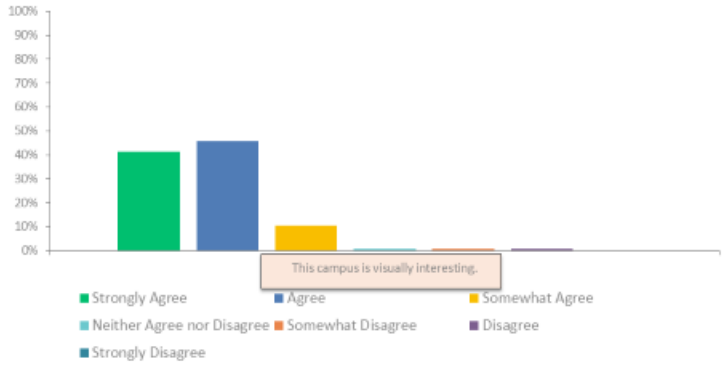
Q29: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
The layout of this campus confuses me.	0.75% 1	1.50% 2	11.28% 15	9.77% 13	21.80% 29	37.59% 50	17.29% 23	133

Q30: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



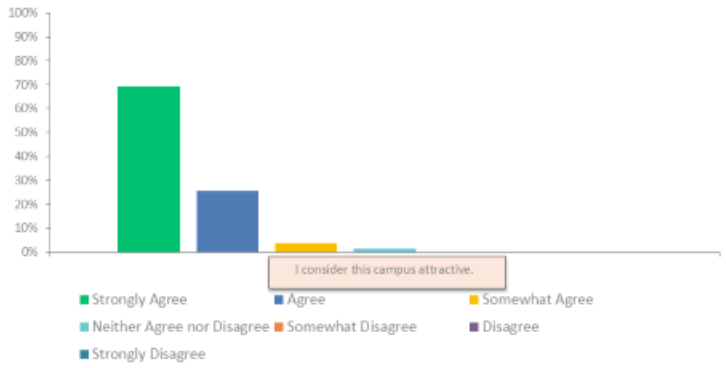
Q30: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
This campus is visually interesting.	41.35% 55	45.86% 61	10.53% 14	0.75% 1	0.75% 1	0.75% 1	0% 0	133

Q31: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



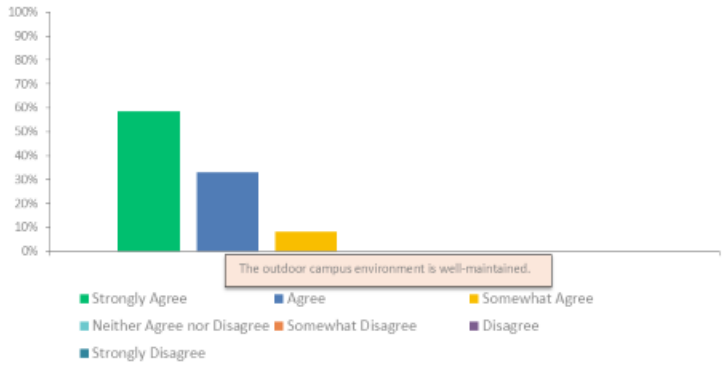
Q31: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
I consider this campus attractive.	69.17% 92	25.56% 34	3.76% 5	1.50% 2	0% 0	0% 0	0% 0	133

Q32: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



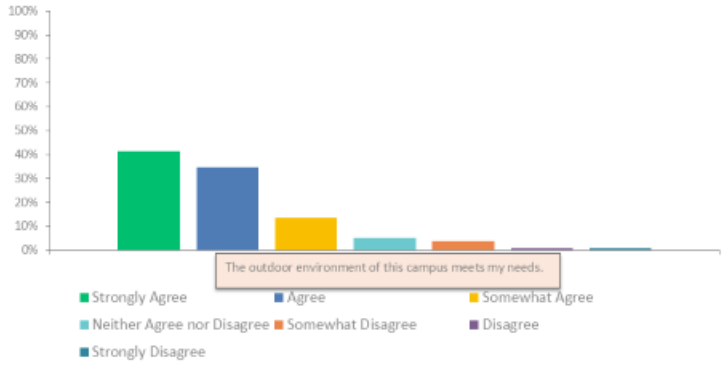
Q32: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
The outdoor campus environment is well-maintained.	58.65% 78	33.08% 44	8.27% 11	0% 0	0% 0	0% 0	0% 0	133

Q33: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



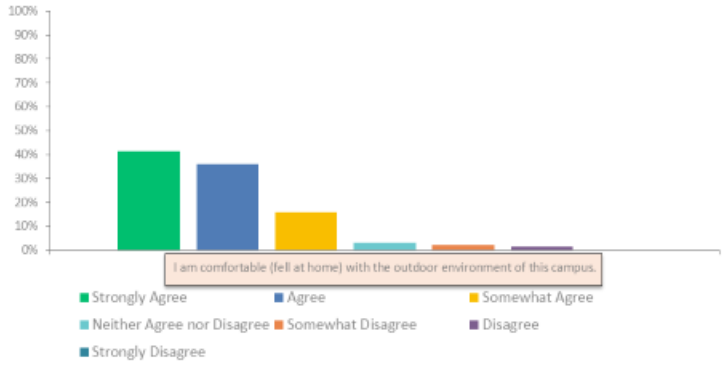
Q33: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
The outdoor environment of this campus meets my needs.	41.35% 55	34.59% 46	13.53% 18	5.26% 7	3.76% 5	0.75% 1	0.75% 1	133

Q34: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



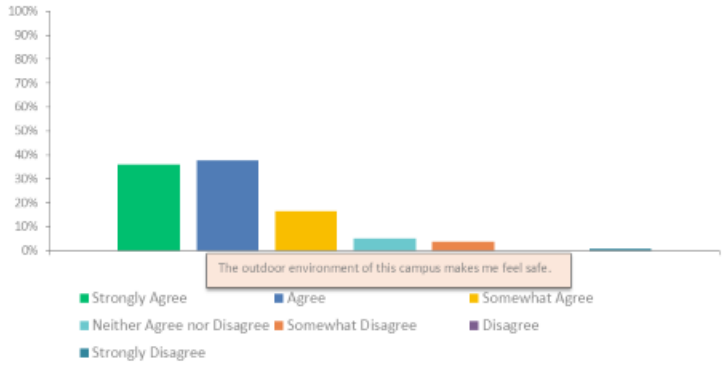
Q34: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
I am comfortable (felt at home) with the outdoor environment of this campus.	41.35% 55	36.09% 48	15.79% 21	3.01% 4	2.26% 3	1.50% 2	0% 0	133

Q35: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



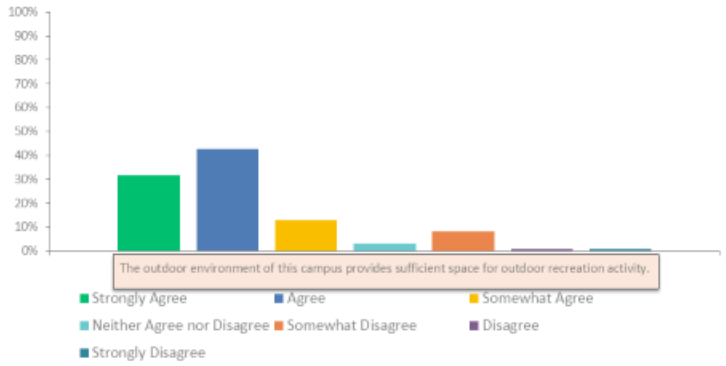
Q35: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
The outdoor environment of this campus makes me feel safe.	36.09% 48	37.59% 50	16.54% 22	5.26% 7	3.76% 5	0% 0	0.75% 1	133

Q36: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



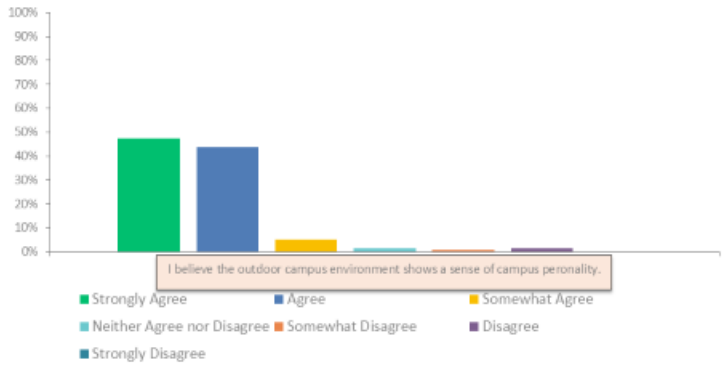
Q36: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
The outdoor environment of this campus provides sufficient space for outdoor recreation activity.	31.58% 42	42.86% 57	12.78% 17	3.01% 4	8.27% 11	0.75% 1	0.75% 1	133

Q37: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



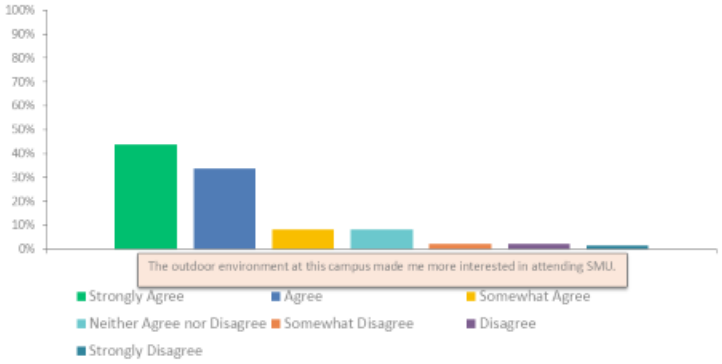
Q37: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
I believe the outdoor campus environment shows a sense of campus peronality.	47.37% 63	43.61% 58	5.26% 7	1.50% 2	0.75% 1	1.50% 2	0% 0	133

Q38: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



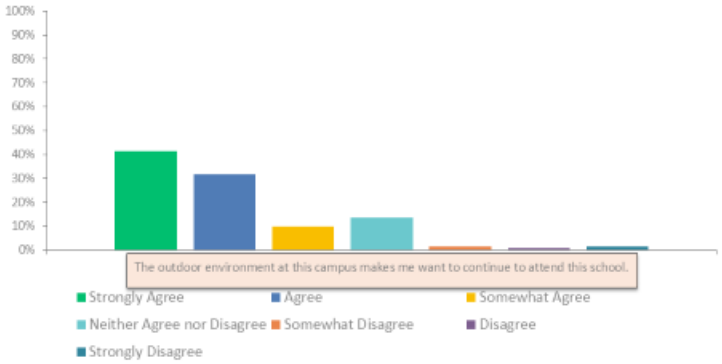
Q38: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
The outdoor environment at this campus made me more interested in attending SMU.	43.61% 58	33.83% 45	8.27% 11	8.27% 11	2.26% 3	2.26% 3	1.50% 2	133

Q39: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42



Q39: Please indicate your level of agreement with this statement.

Answered: 133 Skipped: 42

	STRONGLY AGREE	AGREE	SOMEWHAT AGREE	NEITHER AGREE NOR DISAGREE	SOMEWHAT DISAGREE	DISAGREE	STRONGLY DISAGREE	TOTAL
The outdoor environment at this campus makes me want to continue to attend this school.	41.35% 55	31.58% 42	9.77% 13	13.53% 18	1.50% 2	0.75% 1	1.50% 2	133

Q40 When you want to relax, where on campus do you go?

Answered: 133 Skipped: 42

#	RESPONSES	DATE
1	my bed	4/14/2022 10:33 AM
2	the lawn if the weather is nice, or HT because it has a lot of windows so I am able to see out	4/12/2022 3:13 PM
3	Not much time for relaxing, but Dallas hall lawn in a hammock under a tree is a very cozy place.	3/29/2022 2:38 PM
4	sorority house, dallas hall lawn	3/29/2022 1:15 PM
5	Hughes Triggs, sometimes I sit in the area between Hughes Trigg and Cox. Or in front of Laura Lee Blanton building	3/29/2022 12:05 PM
6	My dorm or outside near the student center	3/28/2022 4:29 PM
7	2nd floor of Hughes Trigg	3/26/2022 10:08 PM
8	My room	3/25/2022 11:00 PM
9	Outdoor bench	3/25/2022 10:51 AM
10	I usually go to the Engineering School.	3/24/2022 2:28 PM
11	Dallas Hall Lawn	3/24/2022 11:25 AM
12	A Practice Room in the Owen Arts Center	3/23/2022 9:54 PM
13	Business Library	3/23/2022 7:45 PM
14	my room	3/23/2022 7:25 PM
15	Dallas Hall Lawn	3/23/2022 4:38 PM
16	Dallas Lawn or the library	3/23/2022 3:58 PM
17	I walk around campus	3/23/2022 3:35 PM
18	tables outside fondren	3/23/2022 1:34 PM
19	Dallas Hall Lawn or Bush Library Garden	3/23/2022 1:18 PM
20	Sports Field	3/23/2022 12:10 PM
21	Caruth Engineering Building Basement	3/23/2022 11:57 AM
22	Dallas Hall Lawn	3/23/2022 10:46 AM
23	dallas hall lawn	3/23/2022 10:36 AM
24	dallas hall lawn or commons	3/23/2022 9:33 AM
25	My apartment	3/23/2022 9:18 AM
26	Dallas hall lawn or Hughes trigg	3/23/2022 12:10 AM
27	Hughes-Trigg, Fondren Library, Dorm	3/22/2022 11:53 PM
28	DHL	3/22/2022 11:21 PM
29	I usually either head to Fondren Library or sit outside of the student center.	3/22/2022 10:27 PM
30	outside in mhps quad at the tables or in my dorm	3/22/2022 10:23 PM
31	Bench outside/ dallas hall lawn	3/22/2022 9:38 PM
32	library	3/22/2022 8:27 PM
33	meadows museum	3/22/2022 4:13 PM
34	Fondren Library	3/22/2022 4:09 PM
35	my room	3/22/2022 3:33 PM
36	In front of Dallas Hall!	3/22/2022 3:14 PM

37	Dallas Hall Lawn or Tanning Pool	3/22/2022 2:59 PM
38	Dallas Hall Lawn	3/22/2022 2:54 PM
39	Dedman, Dallas Hall Lawn	3/22/2022 2:44 PM
40	Dallas Hall Lawn	3/22/2022 2:36 PM
41	over by the museum or for a walk around the close parks	3/22/2022 2:27 PM
42	DH	3/22/2022 2:26 PM
43	Dallas Hall	3/22/2022 2:20 PM
44	Dallas Lawn	3/22/2022 2:11 PM
45	Lawn	3/22/2022 1:10 PM
46	Scholars Den	3/22/2022 1:03 PM
47	I will walk around campus usually around the BLVD area	3/22/2022 12:59 PM
48	Since I don't have a dorm, I usually go to Hughes Trigg or Scholars Den.	3/22/2022 12:52 PM
49	On walks around campus or to Fondren Library	3/22/2022 12:46 PM
50	my dorm	3/22/2022 12:44 PM
51	Dallas Hall Lawn or my dorm	3/22/2022 12:40 PM
52	dallas lawn	3/22/2022 12:28 PM
53	Dallas hall lawn	3/22/2022 12:21 PM
54	Dallas Hall Lawn	3/22/2022 12:08 PM
55	the lawn	3/22/2022 11:54 AM
56	One of the quads or Dallas Lawn	3/22/2022 11:48 AM
57	Dallas Hall Lawn	3/22/2022 11:46 AM
58	Student Center	3/22/2022 11:38 AM
59	Dallas Hall Lawn	3/22/2022 11:32 AM
60	Dallas Hall Lawn	3/22/2022 11:30 AM
61	Dallas Hall Lawn	3/22/2022 11:23 AM
62	library	3/22/2022 11:14 AM
63	the gym	3/22/2022 11:10 AM
64	my room or maybe dallas hall lawn	3/22/2022 11:07 AM
65	I go to my sorority house. Additionally, I go to the Dallas Hall lawn with friends. Sometimes I sit on a bench by Fondren or Cox.	3/22/2022 11:01 AM
66	Dallas Hall Lawn	3/22/2022 11:00 AM
67	fondren	3/22/2022 10:56 AM
68	Just walk around campus	3/22/2022 10:40 AM
69	Busch presidential library park	3/22/2022 10:37 AM
70	dallas hall lawn on a sunny day or tanning pool	3/22/2022 10:29 AM
71	Lawn	3/22/2022 10:19 AM
72	Dallas Hall Lawn	3/22/2022 10:19 AM
73	If the weather is nice, then I'll go to Dallas Hall Lawn and listen to music and/or read	3/22/2022 10:18 AM
74	Dallas Hall Lawn	3/22/2022 10:14 AM
75	Dallas Hall Lawn	3/22/2022 10:04 AM
76	Gym or Dallas hall lawn	3/22/2022 10:02 AM
77	My dorm room	3/22/2022 10:00 AM
78	lawn	3/22/2022 9:48 AM
79	Dallas Hall Lawn	3/22/2022 9:47 AM

80	Dallas Hall Lawn	3/22/2022 9:44 AM
81	I live off campus, so I go straight home. I rarely leisure on campus.	3/22/2022 9:34 AM
82	Fondren Library	3/22/2022 9:28 AM
83	Walk Dallas hall lawn or the DIG	3/22/2022 9:23 AM
84	dallas hall lawn	3/22/2022 9:19 AM
85	Dallas Hall Lawn	3/22/2022 9:14 AM
86	To my dorm or to the student center	3/22/2022 9:06 AM
87	Dedman tanning pool	3/22/2022 9:05 AM
88	Dallas Hall Lawn/Dedman Outdoor Pool	3/22/2022 8:48 AM
89	Dallas Hall Lawn or Hughes Trigg	3/22/2022 8:47 AM
90	If it is a nice day, I will go sit on Dallas Hall Lawn and play Frisbee	3/22/2022 8:30 AM
91	Hammock in my quad	3/22/2022 8:23 AM
92	fraternity house	3/22/2022 8:22 AM
93	Tables outside of fondren	3/22/2022 8:19 AM
94	Dallas hall lawn	3/22/2022 8:05 AM
95	Library	3/22/2022 8:04 AM
96	Boulevard	3/22/2022 7:58 AM
97	Ht	3/22/2022 7:44 AM
98	Dallas Hall Lawn	3/22/2022 7:34 AM
99	Gym	3/22/2022 7:28 AM
100	Dallas hall lawn	3/22/2022 7:18 AM
101	Dallas hall lawn	3/22/2022 7:03 AM
102	Fondren or Dallas Hall Lawn	3/22/2022 4:07 AM
103	Caruth Amphitheater	3/22/2022 1:49 AM
104	Student Center	3/22/2022 1:25 AM
105	My room	3/22/2022 1:16 AM
106	Dallas Hall Lawn	3/22/2022 1:14 AM
107	My room, my boyfriends room, or Dallas Hall Lawn	3/22/2022 1:13 AM
108	Back to my room, the library (Fondren), or the business education building behind Boaz.	3/22/2022 1:12 AM
109	Outside	3/22/2022 1:10 AM
110	Dorm, indoor spaces	3/22/2022 1:03 AM
111	Outside fondren Library	3/22/2022 1:02 AM
112	Dallas Hall	3/22/2022 12:59 AM
113	Dallas Hall Lawn	3/22/2022 12:59 AM
114	fondren	3/22/2022 12:57 AM
115	Starbucks in Fondren Library	3/22/2022 12:56 AM
116	Side of Dallas hall lawn in front of McFarlin	3/22/2022 12:55 AM
117	Dallas Hall Lawn	3/22/2022 12:53 AM
118	Owen’s arts center or Hughes Trigg	3/22/2022 12:51 AM
119	Dallas Hall Lawn	3/22/2022 12:48 AM
120	My dorm. (McElvaney)	3/22/2022 12:43 AM
121	The Theology and Law School quads	3/22/2022 12:40 AM
122	Dallas Hall lawn	3/22/2022 12:39 AM

123	Dallas Hall Lawn or Scholars Den	3/22/2022 12:36 AM
124	the labrynth by perkins (also ur list of questions isn't working. the format won't let me answer them)	3/22/2022 12:35 AM
125	Fraternity house or leave campus	3/22/2022 12:33 AM
126	DHL or dorm	3/22/2022 12:32 AM
127	Library (any)	3/22/2022 12:31 AM
128	picnic tables outside of Fondren library	3/22/2022 12:28 AM
129	Bridwell	3/22/2022 12:27 AM
130	Gym, library (fondren)	3/22/2022 12:26 AM
131	A garden	3/22/2022 12:26 AM
132	To the trail next to the George Bush library	3/22/2022 12:25 AM
133	Dallas lawn	3/22/2022 12:20 AM

Q41 What features in this area helps you relax?

Answered: 133 Skipped: 42

#	RESPONSES	DATE
1	my pillows	4/14/2022 10:33 AM
2	the atmosphere of HT I like a lot, it feels very open and welcoming	4/12/2022 3:13 PM
3	Nature, being in the shade	3/29/2022 2:38 PM
4	quiet friendly fun	3/29/2022 1:15 PM
5	It can get a good amount of sunlight and Laura Lee Blanton has the little covered sitting area next to the fountains.	3/29/2022 12:05 PM
6	My bed and a lack of people/traffic. Fresh air	3/28/2022 4:29 PM
7	I sprawl out on the couches	3/26/2022 10:08 PM
8	Bed	3/25/2022 11:00 PM
9	Sunshine	3/25/2022 10:51 AM
10	It is quiet and has places so sit both inside and outside and do whatever.	3/24/2022 2:28 PM
11	Green space, trees	3/24/2022 11:25 AM
12	It is isolated	3/23/2022 9:54 PM
13	Study rooms	3/23/2022 7:45 PM
14	it's quiet and comfortable	3/23/2022 7:25 PM
15	open area of grass	3/23/2022 4:38 PM
16	Green grass, spaces to lay, hammocking zones	3/23/2022 3:58 PM
17	fresh air	3/23/2022 3:35 PM
18	shade, trees, people around.	3/23/2022 1:34 PM
19	Outdoor, where I can hang hammock	3/23/2022 1:18 PM
20	The football pitch	3/23/2022 12:10 PM
21	There are padded benches to lay down on (we need more of these or nap pods)	3/23/2022 11:57 AM
22	It is usually sunny but there's plenty of trees to sit under if you get too hot. The sound of the fountain is nice and Dallas Hall is nice to look at	3/23/2022 10:46 AM
23	It gets sunny and there are lots of trees to sit under	3/23/2022 10:36 AM
24	seating outdoor areas	3/23/2022 9:33 AM
25	I have a quiet location to study and relax	3/23/2022 9:18 AM
26	Outdoor space, lots of people watching, good food options	3/23/2022 12:10 AM
27	Food accessibility, comfortable seating, semi-privacy	3/22/2022 11:53 PM
28	Greens	3/22/2022 11:21 PM
29	The area is well kept with trees and a nice informal area with plenty of places to sit	3/22/2022 10:27 PM
30	the tables and chairs, i can do my homework there. my dorm is comfy with my bed	3/22/2022 10:23 PM
31	fresh air/ shade	3/22/2022 9:38 PM
32	the peace	3/22/2022 8:27 PM
33	it’s peaceful and away from the busier parts of campus. It has gardens all around it and fountains that are enjoyable when it’s nice outside. If the weather isn’t great, inside has a similar effect: peaceful, quiet, ability to focus on something other than class.	3/22/2022 4:13 PM
34	It's a beautiful old building and is often pretty quiet.	3/22/2022 4:09 PM
35	n/a	3/22/2022 3:33 PM

36	Open concept	3/22/2022 3:14 PM
37	Sun and open space	3/22/2022 2:59 PM
38	Large Open Space, Presence of Mature Trees, Visually Appealing and unique architecture	3/22/2022 2:54 PM
39	Exercise / nature / grass	3/22/2022 2:44 PM
40	Wide, open green spaces; often run into friends in this area since it is frequented by sturends	3/22/2022 2:36 PM
41	water features, greenery, calm and quite spaces	3/22/2022 2:27 PM
42	water fountain	3/22/2022 2:26 PM
43	Nice area	3/22/2022 2:20 PM
44	Green area	3/22/2022 2:11 PM
45	Grass outdoors	3/22/2022 1:10 PM
46	Seating and refreshments	3/22/2022 1:03 PM
47	Trees	3/22/2022 12:59 PM
48	Scholars Den is comfortably cold	3/22/2022 12:52 PM
49	Quietness and independent time	3/22/2022 12:46 PM
50	comfortable furnishings	3/22/2022 12:44 PM
51	on a nice day with friends sitting on Dallas hall lawn provides a relaxing environment, and my dorm is just a quiet space away from others I can go to.	3/22/2022 12:40 PM
52	grass	3/22/2022 12:28 PM
53	Open grass, shade, benches	3/22/2022 12:21 PM
54	Outdoors, pretty scenery, people (social aspect)	3/22/2022 12:08 PM
55	sunshine	3/22/2022 11:54 AM
56	Open spaces and shade.	3/22/2022 11:48 AM
57	Soft grass and fountain	3/22/2022 11:46 AM
58	It is always filled with friends so it is a good environment to kick back in.	3/22/2022 11:38 AM
59	Trees and landscaping	3/22/2022 11:32 AM
60	benches, the fountain, the layout, flowers	3/22/2022 11:30 AM
61	The well kept lawn	3/22/2022 11:23 AM
62	space	3/22/2022 11:14 AM
63	I know that i am doing somthing good for myself	3/22/2022 11:10 AM
64	my bed, the sun	3/22/2022 11:07 AM
65	The landscaping. I find it absolutely beautiful and love that there is such an emphasis on great landscaping. I just like to have the sun and the trees surrounding.	3/22/2022 11:01 AM
66	Wide open spaces, well maintained lawn	3/22/2022 11:00 AM
67	study rooms	3/22/2022 10:56 AM
68	Fountains, trees, nature	3/22/2022 10:40 AM
69	the bunnies	3/22/2022 10:37 AM
70	lots of space and trees and other students hanging out there	3/22/2022 10:29 AM
71	Open Space, Grass, Fountain	3/22/2022 10:19 AM
72	The open spaces on the green	3/22/2022 10:19 AM
73	The trees and the amount of grass. Everyone feels like they have enough of their own space	3/22/2022 10:18 AM
74	Nice open lawn, sunshine and shade,	3/22/2022 10:14 AM
75	The green space, the fountain, and looking at Dallas Hall	3/22/2022 10:04 AM
76	Grassy parks, physical activity	3/22/2022 10:02 AM
77	There are places to sit down	3/22/2022 10:00 AM

78	grass, open	3/22/2022 9:48 AM
79	Fountain, large grass areas, shade	3/22/2022 9:47 AM
80	The wide open green space, the big trees, and the fountain	3/22/2022 9:44 AM
81	N/A	3/22/2022 9:34 AM
82	The Boulevard	3/22/2022 9:28 AM
83	Open spaces/friends	3/22/2022 9:23 AM
84	lots of grass and trees	3/22/2022 9:19 AM
85	Open space, fountain, view of Dallas Has	3/22/2022 9:14 AM
86	Its a relaxed environment with plenty of seating	3/22/2022 9:06 AM
87	The water and being outside	3/22/2022 9:05 AM
88	Outside area with places to sit.	3/22/2022 8:48 AM
89	The openness of the lawn and how well-kept it is. Also the amount of seating in Hughes Trigg is great, there are plenty of nicer couches and areas to relax	3/22/2022 8:47 AM
90	The trees, the open space, hanging out with friends	3/22/2022 8:30 AM
91	Hammock hanging thing	3/22/2022 8:23 AM
92	being in a place of solace	3/22/2022 8:22 AM
93	The brick buildings and green grass	3/22/2022 8:19 AM
94	Large green area, with trees and a fountain	3/22/2022 8:05 AM
95	Quiet	3/22/2022 8:04 AM
96	Lots of green space and trees	3/22/2022 7:58 AM
97	the chairs upstairs to lay down on	3/22/2022 7:44 AM
98	Space to lay down on the grass in the sunshine	3/22/2022 7:34 AM
99	Weights	3/22/2022 7:28 AM
100	The fountain the trees etc	3/22/2022 7:18 AM
101	Lawn to lay on with fountains. And dogs	3/22/2022 7:03 AM
102	Laying on the lawn, or the benches and tables outside of fondren	3/22/2022 4:07 AM
103	Outside, some coverage from rain, semi-private	3/22/2022 1:49 AM
104	Food, noise, people	3/22/2022 1:25 AM
105	Being alone/ being able to sleep	3/22/2022 1:16 AM
106	Open fields, trees for shade and hammocks	3/22/2022 1:14 AM
107	Dallas Hall Lawn is the best when it's sunny. There is a sense of community when everyone is outside	3/22/2022 1:13 AM
108	Quiet, have large windows, good building design.	3/22/2022 1:12 AM
109	Trees	3/22/2022 1:10 AM
110	Relative quiet, temperature control, resources	3/22/2022 1:03 AM
111	Nice seating area and shade and not super busy in the right spots	3/22/2022 1:02 AM
112	Cozy couches and the lighting	3/22/2022 12:59 AM
113	Large grass area, trees, view of Dallas Hall	3/22/2022 12:59 AM
114	outdoor seating	3/22/2022 12:57 AM
115	Coffee, liveliness, outdoor and indoor seating	3/22/2022 12:56 AM
116	Tucked away and it gets the right amount of sun	3/22/2022 12:55 AM
117	Green space	3/22/2022 12:53 AM
118	Ambient noise and well maintained environment	3/22/2022 12:51 AM
119	Soft green grass, sun	3/22/2022 12:48 AM

120	It’s where my bed is.	3/22/2022 12:43 AM
121	Quiet, secluded, trees, ample seating, tucked away from main paths	3/22/2022 12:40 AM
122	Dallas Hall lawn	3/22/2022 12:39 AM
123	Sunlight, Quiet	3/22/2022 12:36 AM
124	it’s meant for meditation	3/22/2022 12:35 AM
125	Where my friends are	3/22/2022 12:33 AM
126	Sun and my own space	3/22/2022 12:32 AM
127	Quiet and around friends	3/22/2022 12:31 AM
128	tables, shade, outlets, quiet/off main walk ways	3/22/2022 12:28 AM
129	Books, quiet, natural lighting and serenity	3/22/2022 12:27 AM
130	Good equipment	3/22/2022 12:26 AM
131	All the trees pretty flowers and fresh air and sunlight	3/22/2022 12:26 AM
132	It’s a great running/walking path	3/22/2022 12:25 AM
133	Green grass and wide view of sky	3/22/2022 12:20 AM

Q42 Which part of campus do you like the most?

Answered: 133 Skipped: 42

#	RESPONSES	DATE
1	the meadows school	4/14/2022 10:33 AM
2	Dallas Hall lawn and Hughes Trigg and Fondren library	4/12/2022 3:13 PM
3	The Boulevard, seeing the trees and the green grass and having Dallas Hall in the background is a pretty view.	3/29/2022 2:38 PM
4	dallas hall lawn	3/29/2022 1:15 PM
5	Boulevard	3/29/2022 12:05 PM
6	Hughes Trigg Student Center	3/28/2022 4:29 PM
7	the new hughes trigg center as well as walkway from the new dorms to the rest of campus	3/26/2022 10:08 PM
8	Cox	3/25/2022 11:00 PM
9	Boulevard	3/25/2022 10:51 AM
10	My favorite part of campus in definitely Dallas Hall Lawn and Bishop Boulevard.	3/24/2022 2:28 PM
11	Boulevard	3/24/2022 11:25 AM
12	The Boulevard	3/23/2022 9:54 PM
13	Blvd	3/23/2022 7:45 PM
14	I like newer buildings, especially those with big windows to view outside such as the fourth floor of fondren.	3/23/2022 7:25 PM
15	the flagpole	3/23/2022 4:38 PM
16	Dallas Hall and the residence quads	3/23/2022 3:58 PM
17	Area surrounding the boulevard	3/23/2022 3:35 PM
18	center and dallas hall	3/23/2022 1:34 PM
19	Well kept lawns and gardens	3/23/2022 1:18 PM
20	The Library	3/23/2022 12:10 PM
21	Dallas Hall Lawn	3/23/2022 11:57 AM
22	Pretty much all of it	3/23/2022 10:46 AM
23	Dallas Hall lawn	3/23/2022 10:36 AM
24	outdoor areas	3/23/2022 9:33 AM
25	VS Quad	3/23/2022 9:18 AM
26	Dallas hall lawn or fondren Starbucks	3/23/2022 12:10 AM
27	The ease of learning where to go and the atmosphere that makes being a beautiful campus seem easy and comfortable.	3/22/2022 11:53 PM
28	DHL, Student center	3/22/2022 11:21 PM
29	The area around Dallas Hall	3/22/2022 10:27 PM
30	dallas hall lawn	3/22/2022 10:23 PM
31	the area around dallas hall lawn, library, student center	3/22/2022 9:38 PM
32	the library	3/22/2022 8:27 PM
33	the law quad	3/22/2022 4:13 PM
34	Fondren Library	3/22/2022 4:09 PM
35	I like the benches outside of Fondren Library	3/22/2022 3:33 PM
36	Dallas Hall	3/22/2022 3:14 PM

37	Dallas Hall Lawn	3/22/2022 2:59 PM
38	Bishop Boulevard Area (without construction)	3/22/2022 2:54 PM
39	Dallas Hall / The Boulevard	3/22/2022 2:44 PM
40	Dallas Hal Lawn	3/22/2022 2:36 PM
41	Area by the new dorms	3/22/2022 2:27 PM
42	DH lawn	3/22/2022 2:26 PM
43	Dallas Hall	3/22/2022 2:20 PM
44	Dallas lawn	3/22/2022 2:11 PM
45	Dallas hall lawn	3/22/2022 1:10 PM
46	the middle of campus (hughes trigg to clements and fondren)	3/22/2022 1:03 PM
47	The BLVD	3/22/2022 12:59 PM
48	Dallas Hall Lawn	3/22/2022 12:52 PM
49	Hughes Triggs or Collins Executive Center in the Business school	3/22/2022 12:46 PM
50	the boulevard	3/22/2022 12:44 PM
51	The boulevard and Dallas Hall Lawn	3/22/2022 12:40 PM
52	science quad	3/22/2022 12:28 PM
53	Dallas Hall/Northeast area	3/22/2022 12:21 PM
54	Laura Lee Blanton Building	3/22/2022 12:08 PM
55	bush trails	3/22/2022 11:54 AM
56	The areas around Dallas Hall.	3/22/2022 11:48 AM
57	Dallas Hall Lawn	3/22/2022 11:46 AM
58	Dallas Hall Lawn	3/22/2022 11:38 AM
59	Dallas Hall Lawn	3/22/2022 11:32 AM
60	fountains, flowers, architecture	3/22/2022 11:30 AM
61	The old dorms quad	3/22/2022 11:23 AM
62	boulevard/dallas lawn	3/22/2022 11:14 AM
63	dallas lawn	3/22/2022 11:10 AM
64	dallas hall lawn	3/22/2022 11:07 AM
65	I love the walk from Dallas Hall past Cox to MoMac dorms. The Boulevard is gorgeous.	3/22/2022 11:01 AM
66	Laura Lee Blanton	3/22/2022 11:00 AM
67	green grass and trees	3/22/2022 10:56 AM
68	Architecture	3/22/2022 10:40 AM
69	new dorms, stadium, new dining hall	3/22/2022 10:37 AM
70	love area where the old academic buildings are	3/22/2022 10:29 AM
71	Library, Gym	3/22/2022 10:19 AM
72	Caruth Hall	3/22/2022 10:19 AM
73	Dallas Hall Lawn and Fondren Library	3/22/2022 10:18 AM
74	Boulevard	3/22/2022 10:14 AM
75	Hughes-Trigg student center	3/22/2022 10:04 AM
76	Dallas hall lawn	3/22/2022 10:02 AM
77	The green spaces because they are visually attractive	3/22/2022 10:00 AM
78	lawn	3/22/2022 9:48 AM
79	Dallas hall lawn	3/22/2022 9:47 AM

80	Dallas Hall Lawn	3/22/2022 9:44 AM
81	The boulevard leading to Dallas Hall and the trees.	3/22/2022 9:34 AM
82	Dallas Hall	3/22/2022 9:28 AM
83	Engineering quad	3/22/2022 9:23 AM
84	dallas hall lawn	3/22/2022 9:19 AM
85	Dallas Hall Lawn	3/22/2022 9:14 AM
86	I like all of the different libraries and the open lawn areas	3/22/2022 9:06 AM
87	The Dallas Hall Lawn area	3/22/2022 9:05 AM
88	Science Buildings and Fondren Library	3/22/2022 8:48 AM
89	Dallas Hall area or the south dorm area	3/22/2022 8:47 AM
90	Dallas Hall Lawn	3/22/2022 8:30 AM
91	Dallas Hall Lawn	3/22/2022 8:23 AM
92	dallas hall	3/22/2022 8:22 AM
93	Dallas Hall Lawn	3/22/2022 8:19 AM
94	Dallas hall lawn and its surrounding buildings	3/22/2022 8:05 AM
95	Library	3/22/2022 8:04 AM
96	Boulevard	3/22/2022 7:58 AM
97	dallas hall lawn	3/22/2022 7:44 AM
98	Area around Fondren Library	3/22/2022 7:34 AM
99	The cohesiveness	3/22/2022 7:28 AM
100	Dallas hall lawn	3/22/2022 7:18 AM
101	Dallas hall lawn	3/22/2022 7:03 AM
102	Outdoor places to sit and do homework	3/22/2022 4:07 AM
103	Caruth Hall	3/22/2022 1:49 AM
104	Dallas Hall Lawn	3/22/2022 1:25 AM
105	Dallas hall lawn or Hugh’s trigg	3/22/2022 1:16 AM
106	Dallas Hall Lawn	3/22/2022 1:14 AM
107	It would be Meadows, but the construction absolutely kills the vibe and the work that I am able to do there. The construction has been a huge hinder to everyone.	3/22/2022 1:13 AM
108	I like the main boulevard area. It’s walkable and central and I walk there everyday.	3/22/2022 1:12 AM
109	Dallas hall lawn	3/22/2022 1:10 AM
110	Dallas Hall Lawn and surroundings	3/22/2022 1:03 AM
111	Dallas hall lawn	3/22/2022 1:02 AM
112	Dallas Hall reading room	3/22/2022 12:59 AM
113	Cox School of Business	3/22/2022 12:59 AM
114	dallas hall lawn	3/22/2022 12:57 AM
115	Dallas Hall Lawn, the cohesiveness of buildings	3/22/2022 12:56 AM
116	Meadows(when it’s not under construction)	3/22/2022 12:55 AM
117	The Boulevard	3/22/2022 12:53 AM
118	Dallas hall lawn	3/22/2022 12:51 AM
119	My dorm room	3/22/2022 12:48 AM
120	The large walkway that goes past engineering quad and then following it all the way to Fondren.	3/22/2022 12:43 AM
121	Dedman College: the areas around Dallas Hall, Clements, Hyer Hall and Fondren Library, and	3/22/2022 12:40 AM

	Fondren Science	
122	Dallas Hall lawn	3/22/2022 12:39 AM
123	The trees	3/22/2022 12:36 AM
124	ware commons	3/22/2022 12:35 AM
125	Boulevard (where boulevard is not “SMU Boulevard”)	3/22/2022 12:33 AM
126	DHL	3/22/2022 12:32 AM
127	Near sorority houses	3/22/2022 12:31 AM
128	Fondren library, Umphrey Lee	3/22/2022 12:28 AM
129	Bridwell area	3/22/2022 12:27 AM
130	Dallas hall	3/22/2022 12:26 AM
131	All the flowers	3/22/2022 12:26 AM
132	Dallas Hall lawn	3/22/2022 12:25 AM
133	dallas hall lawn	3/22/2022 12:20 AM

Q43 Which part of campus do you like the least?

Answered: 133 Skipped: 42

#	RESPONSES	DATE
1	fondren science and fondren library	4/14/2022 10:33 AM
2	I don't think I have an answer	4/12/2022 3:13 PM
3	Visually, the areas by the new dorms because its all brick and no grass	3/29/2022 2:38 PM
4	cox landscaping	3/29/2022 1:15 PM
5	idk	3/29/2022 12:05 PM
6	The areas near Hyer Hall, Fondren Science and Law Quad	3/28/2022 4:29 PM
7	Owen Arts Center by far. It is a maze to find any room in there	3/26/2022 10:08 PM
8	Science buildings	3/25/2022 11:00 PM
9	NA	3/25/2022 10:51 AM
10	My least favorite part of campus is Fondren Science.	3/24/2022 2:28 PM
11	Football stadium area (lots of concrete)	3/24/2022 11:25 AM
12	The construction areas	3/23/2022 9:54 PM
13	Police building	3/23/2022 7:45 PM
14	I dislike areas such as Hyer Hall, which are in need of updating.	3/23/2022 7:25 PM
15	any construction	3/23/2022 4:38 PM
16	CONSTRUCTION!! Always doing construction and it is so annoying	3/23/2022 3:58 PM
17	new dorm area	3/23/2022 3:35 PM
18	new buildings	3/23/2022 1:34 PM
19	poorly kept spaces	3/23/2022 1:18 PM
20	The old halls	3/23/2022 12:10 PM
21	The water quality esp. in fondren	3/23/2022 11:57 AM
22	I don't like Prohtro because it's far away. I do not want to have classes there	3/23/2022 10:46 AM
23	Lack of parking	3/23/2022 10:36 AM
24	fondren science	3/23/2022 9:33 AM
25	The new dorm area	3/23/2022 9:18 AM
26	Clements hall and hyer	3/23/2022 12:10 AM
27	The lack of parking for the number of students needing it.	3/22/2022 11:53 PM
28	Parking lot	3/22/2022 11:21 PM
29	I'm not sure	3/22/2022 10:27 PM
30	the construction going on, it makes it ugly	3/22/2022 10:23 PM
31	old dorms on blvd	3/22/2022 9:38 PM
32	the sports center	3/22/2022 8:27 PM
33	the area around Mac’s place/soccer field	3/22/2022 4:13 PM
34	Lyle quad	3/22/2022 4:09 PM
35	The construction around Meadows	3/22/2022 3:33 PM
36	The gym	3/22/2022 3:14 PM
37	ongoing construction	3/22/2022 2:59 PM

38	Area behind Dallas Hall	3/22/2022 2:54 PM
39	parking	3/22/2022 2:44 PM
40	Older, out of date buildings/facilities and areas under construction	3/22/2022 2:36 PM
41	old dorms over by Macs	3/22/2022 2:27 PM
42	Police station	3/22/2022 2:26 PM
43	Old dorms	3/22/2022 2:20 PM
44	-	3/22/2022 2:11 PM
45	Old dorms	3/22/2022 1:10 PM
46	the science quad at the top of campus behind dallas hall	3/22/2022 1:03 PM
47	Anywhere that has construction going on	3/22/2022 12:59 PM
48	The older halls next to Dallas Hall (Hyer Hall, etc.)	3/22/2022 12:52 PM
49	The bathroooms in all the main building (Dedman, Dallas Hall, Hyer,etc.)	3/22/2022 12:46 PM
50	the gym	3/22/2022 12:44 PM
51	Areas with construction otherwise none	3/22/2022 12:40 PM
52	cox	3/22/2022 12:28 PM
53	Meadows	3/22/2022 12:21 PM
54	Older buildings like Hyer Hall / my dorm (McElvaney)	3/22/2022 12:08 PM
55	n/a	3/22/2022 11:54 AM
56	Fondren Science area.	3/22/2022 11:48 AM
57	N/A	3/22/2022 11:46 AM
58	Clements Hall	3/22/2022 11:38 AM
59	Parking	3/22/2022 11:32 AM
60	need more student parking	3/22/2022 11:30 AM
61	The Parking Situations	3/22/2022 11:23 AM
62	parking	3/22/2022 11:14 AM
63	my dorm (Boaz)	3/22/2022 11:10 AM
64	no where in particular	3/22/2022 11:07 AM
65	I don't like the seating outside of Fondren. It looks old and dirty, with little sun.	3/22/2022 11:01 AM
66	Meadows	3/22/2022 11:00 AM
67	lack of parking	3/22/2022 10:56 AM
68	Parking	3/22/2022 10:40 AM
69	Dedman weightroom	3/22/2022 10:37 AM
70	anywhere with constructions, it sucks	3/22/2022 10:29 AM
71	Parking, Mcelvaney	3/22/2022 10:19 AM
72	None	3/22/2022 10:19 AM
73	Bishop Boulevard, mainly where the construction is at the Meadows School	3/22/2022 10:18 AM
74	The east side of main campus feels disconnected	3/22/2022 10:14 AM
75	Fondren Science	3/22/2022 10:04 AM
76	Old dorms quad	3/22/2022 10:02 AM
77	Some of the older buildings like Hyer Hall	3/22/2022 10:00 AM
78	flagpole area	3/22/2022 9:48 AM
79	football stadium area	3/22/2022 9:47 AM
80	The Meadows School of the Arts	3/22/2022 9:44 AM

81	The parking	3/22/2022 9:34 AM
82	Parking Spaces - needs urgent improvement	3/22/2022 9:28 AM
83	Parking	3/22/2022 9:23 AM
84	new dorms area	3/22/2022 9:19 AM
85	Meadows (construction)	3/22/2022 9:14 AM
86	I dont have anything in mind	3/22/2022 9:06 AM
87	lack of parking and construction	3/22/2022 9:05 AM
88	Wherever construction is occurring	3/22/2022 8:48 AM
89	The west side	3/22/2022 8:47 AM
90	Fondren Science Area	3/22/2022 8:30 AM
91	Quad between Momac, McElvaney, and Cockrell	3/22/2022 8:23 AM
92	PARKING	3/22/2022 8:22 AM
93	The area between the soccer field and Mac's place	3/22/2022 8:19 AM
94	Engineering quad	3/22/2022 8:05 AM
95	Parking	3/22/2022 8:04 AM
96	Parking lots	3/22/2022 7:58 AM
97	Hyer hall	3/22/2022 7:44 AM
98	Parking lots	3/22/2022 7:34 AM
99	Lack of parking	3/22/2022 7:28 AM
100	The construction and lack of parking	3/22/2022 7:18 AM
101	Fondren science building	3/22/2022 7:03 AM
102	Parking	3/22/2022 4:07 AM
103	Clements Hall	3/22/2022 1:49 AM
104	The edges of campus	3/22/2022 1:25 AM
105	Hyer hall	3/22/2022 1:16 AM
106	Anywhere with construction	3/22/2022 1:14 AM
107	The Meadows construction	3/22/2022 1:13 AM
108	The area by UDH/Owen Fine Arts	3/22/2022 1:12 AM
109	Meadows	3/22/2022 1:10 AM
110	Cox Business School	3/22/2022 1:03 AM
111	Meadows (construction)	3/22/2022 1:02 AM
112	The dorms	3/22/2022 12:59 AM
113	Science Quad (Fondren Science, etc)	3/22/2022 12:59 AM
114	science quad	3/22/2022 12:57 AM
115	The fondren science quad	3/22/2022 12:56 AM
116	N/A, but if I have to choose it would macs place due to rats being outside	3/22/2022 12:55 AM
117	Science building restrooms	3/22/2022 12:53 AM
118	The quality of the old dorms	3/22/2022 12:51 AM
119	The Law Quad	3/22/2022 12:48 AM
120	Owen Arts Center. (Meadows building)	3/22/2022 12:43 AM
121	Southeast dorms and all the roads through campus	3/22/2022 12:40 AM
122	Space between Morrison-McGinnis, McElvaney, and Cockrell-McIntosh	3/22/2022 12:39 AM
123	Not enough parking?	3/22/2022 12:36 AM

124	the construction behind the catholic center	3/22/2022 12:35 AM
125	Hyer Hall	3/22/2022 12:33 AM
126	Meadows area	3/22/2022 12:32 AM
127	Everything south of Engineering	3/22/2022 12:31 AM
128	Clements Hall (old), Dallas hall classrooms (also old), OFAC construction	3/22/2022 12:28 AM
129	Towards athletic facilities	3/22/2022 12:27 AM
130	Dorms	3/22/2022 12:26 AM
131	construction zoned areas	3/22/2022 12:26 AM
132	The area by Hughes-Trigg/ sorority houses because it's always under construction	3/22/2022 12:25 AM
133	None	3/22/2022 12:20 AM

Q44 Which part of campus do you use for studying the most?

Answered: 133 Skipped: 42

#	RESPONSES	DATE
1	the meadows atrium or Hamon library	4/14/2022 10:33 AM
2	Fondren Library	4/12/2022 3:13 PM
3	Meadows atrium	3/29/2022 2:38 PM
4	fondren	3/29/2022 1:15 PM
5	My dorm, or the Chi Omega house	3/29/2022 12:05 PM
6	Fondren Library	3/28/2022 4:29 PM
7	Fondren and Hamon Arts Library	3/26/2022 10:08 PM
8	Fondren	3/25/2022 11:00 PM
9	NA	3/25/2022 10:51 AM
10	I use Fondren Library the most.	3/24/2022 2:28 PM
11	Scholar's Den	3/24/2022 11:25 AM
12	The Owen Arts Center Lobby	3/23/2022 9:54 PM
13	Business Library	3/23/2022 7:45 PM
14	My sorority house, or fondren library.	3/23/2022 7:25 PM
15	fondren	3/23/2022 4:38 PM
16	Fondren Library	3/23/2022 3:58 PM
17	Fondren	3/23/2022 3:35 PM
18	Fondren or dallas hall lawn	3/23/2022 1:34 PM
19	dorm room or meadows	3/23/2022 1:18 PM
20	The library	3/23/2022 12:10 PM
21	The Engineering Section	3/23/2022 11:57 AM
22	Fondren Library	3/23/2022 10:46 AM
23	Hughes Trigg	3/23/2022 10:36 AM
24	fondren and crum classroom	3/23/2022 9:33 AM
25	My apartment	3/23/2022 9:18 AM
26	Fondren library	3/23/2022 12:10 AM
27	Fondren Library	3/22/2022 11:53 PM
28	Collins center and student center	3/22/2022 11:21 PM
29	Fondren Library	3/22/2022 10:27 PM
30	library and my dorm	3/22/2022 10:23 PM
31	Bridwell and quiet floors of fondren	3/22/2022 9:38 PM
32	library	3/22/2022 8:27 PM
33	fondren	3/22/2022 4:13 PM
34	Fondren Library	3/22/2022 4:09 PM
35	my room	3/22/2022 3:33 PM
36	The library	3/22/2022 3:14 PM
37	outside library patio	3/22/2022 2:59 PM

38	Indoor Libraries	3/22/2022 2:54 PM
39	Fondren Library	3/22/2022 2:44 PM
40	My dorm room	3/22/2022 2:36 PM
41	Fondren or Bridwell library	3/22/2022 2:27 PM
42	Fondren library	3/22/2022 2:26 PM
43	library	3/22/2022 2:20 PM
44	Library	3/22/2022 2:11 PM
45	Fondren	3/22/2022 1:10 PM
46	Clements (Scholars Den)	3/22/2022 1:03 PM
47	Library	3/22/2022 12:59 PM
48	Scholars Den	3/22/2022 12:52 PM
49	Dorm room	3/22/2022 12:46 PM
50	fondren library	3/22/2022 12:44 PM
51	My dorm, the library, or the student center	3/22/2022 12:40 PM
52	library	3/22/2022 12:28 PM
53	Northeast area	3/22/2022 12:21 PM
54	Fondren	3/22/2022 12:08 PM
55	libraries	3/22/2022 11:54 AM
56	Fondren Library.	3/22/2022 11:48 AM
57	Fondren Library	3/22/2022 11:46 AM
58	Armstrong Classroom	3/22/2022 11:38 AM
59	Fonderon	3/22/2022 11:32 AM
60	Fondren Library	3/22/2022 11:30 AM
61	Hughes Trigg	3/22/2022 11:23 AM
62	library	3/22/2022 11:14 AM
63	fondren	3/22/2022 11:10 AM
64	fondren	3/22/2022 11:07 AM
65	I use the Business Library and Fondren reading room the most.	3/22/2022 11:01 AM
66	Fondren/Hughes Trigg	3/22/2022 11:00 AM
67	fondren	3/22/2022 10:56 AM
68	Library	3/22/2022 10:40 AM
69	fondren	3/22/2022 10:37 AM
70	fondren	3/22/2022 10:29 AM
71	Library	3/22/2022 10:19 AM
72	Fondren Library	3/22/2022 10:19 AM
73	Fondren Library	3/22/2022 10:18 AM
74	Fondren	3/22/2022 10:14 AM
75	Hughes-Trigg Student Center	3/22/2022 10:04 AM
76	Libaray	3/22/2022 10:02 AM
77	Fondren Library	3/22/2022 10:00 AM
78	fondren	3/22/2022 9:48 AM
79	Fondren Library	3/22/2022 9:47 AM
80	Fondren Library	3/22/2022 9:44 AM

81	I don't study/spend a lot of time on campus	3/22/2022 9:34 AM
82	Fondren Library	3/22/2022 9:28 AM
83	Engineering buildings study areas	3/22/2022 9:23 AM
84	fondren	3/22/2022 9:19 AM
85	Fondren Library	3/22/2022 9:14 AM
86	Fondren library	3/22/2022 9:06 AM
87	Fondren Library	3/22/2022 9:05 AM
88	Fondren Library	3/22/2022 8:48 AM
89	Fondren	3/22/2022 8:47 AM
90	Fondren Library	3/22/2022 8:30 AM
91	My dorm room	3/22/2022 8:23 AM
92	cox buildings	3/22/2022 8:22 AM
93	Cox Library and Fondren	3/22/2022 8:19 AM
94	Fondren library	3/22/2022 8:05 AM
95	Library	3/22/2022 8:04 AM
96	My dorm room	3/22/2022 7:58 AM
97	fondren	3/22/2022 7:44 AM
98	Fondren Library	3/22/2022 7:34 AM
99	Library	3/22/2022 7:28 AM
100	My room	3/22/2022 7:18 AM
101	Fondren library	3/22/2022 7:03 AM
102	Library or the outdoor seating	3/22/2022 4:07 AM
103	Foundren Library	3/22/2022 1:49 AM
104	Fondren Library	3/22/2022 1:25 AM
105	Hugh’s trigg and my commons	3/22/2022 1:16 AM
106	Meadows or Fondren	3/22/2022 1:14 AM
107	Fondren library (reading room on second floor)	3/22/2022 1:13 AM
108	My room or the library. Sometimes the student center	3/22/2022 1:12 AM
109	Off campus	3/22/2022 1:10 AM
110	Clements Hall Basement	3/22/2022 1:03 AM
111	My dorm	3/22/2022 1:02 AM
112	Fondren Library	3/22/2022 12:59 AM
113	Fondren Library	3/22/2022 12:59 AM
114	fondren	3/22/2022 12:57 AM
115	Fondren Library	3/22/2022 12:56 AM
116	Daniel House study rooms	3/22/2022 12:55 AM
117	Fondren Library	3/22/2022 12:53 AM
118	Meadows basement	3/22/2022 12:51 AM
119	Fondren Library	3/22/2022 12:48 AM
120	Fondren library.	3/22/2022 12:43 AM
121	West	3/22/2022 12:40 AM
122	COX Business School Building	3/22/2022 12:39 AM
123	Scholars Den	3/22/2022 12:36 AM

124	meadows library	3/22/2022 12:35 AM
125	Dedman library or Cox buildings	3/22/2022 12:33 AM
126	Fondren or my dorm	3/22/2022 12:32 AM
127	North side	3/22/2022 12:31 AM
128	Fondren picnic tables/starbucks lounge	3/22/2022 12:28 AM
129	Law library, fondren	3/22/2022 12:27 AM
130	Fondren	3/22/2022 12:26 AM
131	Learning center or Hugh trig center or Fondren library or Dallas Hall	3/22/2022 12:26 AM
132	Fondren library	3/22/2022 12:25 AM
133	Library	3/22/2022 12:20 AM

Q45 Which part of campus do you connect with the most?

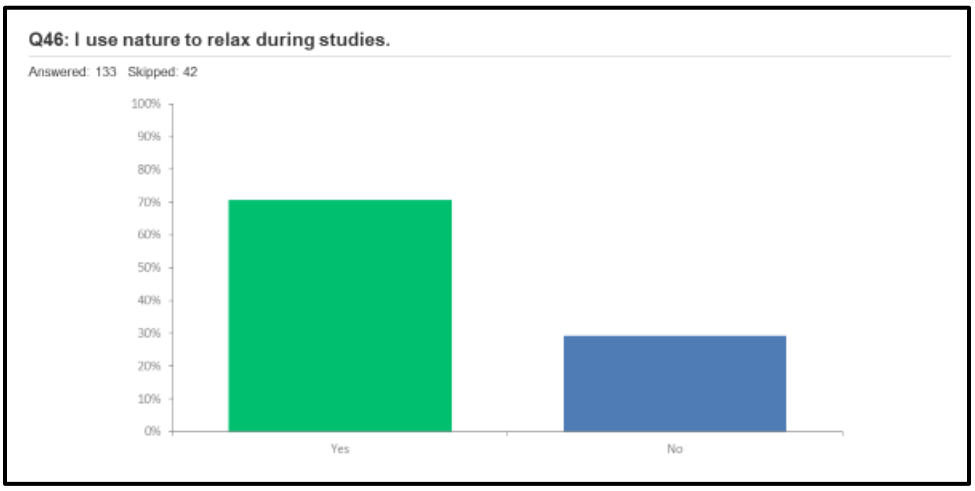
Answered: 133 Skipped: 42

#	RESPONSES	DATE
1	meadows	4/14/2022 10:33 AM
2	the library and Dallas Hall lawn	4/12/2022 3:13 PM
3	Dining hall	3/29/2022 2:38 PM
4	outside	3/29/2022 1:15 PM
5	the Chi Omega house	3/29/2022 12:05 PM
6	Hughes Trigg Student center	3/28/2022 4:29 PM
7	Hughes Trigg and Fondren	3/26/2022 10:08 PM
8	Cox	3/25/2022 11:00 PM
9	Dallas Hall lawn	3/25/2022 10:51 AM
10	I connect with Dallas Hall the most. I really love the building and its history.	3/24/2022 2:28 PM
11	Main (Dallas Hall, Fondren Science, to Engineering Quad)	3/24/2022 11:25 AM
12	The Arts Side	3/23/2022 9:54 PM
13	Cox	3/23/2022 7:45 PM
14	Fondren science building, as that is where I have most of my favorite classes for my major.	3/23/2022 7:25 PM
15	fondren	3/23/2022 4:38 PM
16	Dallas Hall/Lawn	3/23/2022 3:58 PM
17	North half	3/23/2022 3:35 PM
18	outside spaces, library	3/23/2022 1:34 PM
19	Meadows and the gardens/boulevard	3/23/2022 1:18 PM
20	The library	3/23/2022 12:10 PM
21	Engineering Section	3/23/2022 11:57 AM
22	The new dorm area and the roofs of the parking garages	3/23/2022 10:46 AM
23	Hughes-Trigg	3/23/2022 10:36 AM
24	commons	3/23/2022 9:33 AM
25	The work space of the Hunt Institute for Engineering and Humanity	3/23/2022 9:18 AM
26	Engineering buildings Bc I have class there so often and they are renovated	3/23/2022 12:10 AM
27	Dorm Halls	3/22/2022 11:53 PM
28	library	3/22/2022 11:21 PM
29	The area around Dallas Hall	3/22/2022 10:27 PM
30	fondren library or hughes trigg	3/22/2022 10:23 PM
31	outdoors and social areas	3/22/2022 9:38 PM
32	library	3/22/2022 8:27 PM
33	Dallas hall lawn	3/22/2022 4:13 PM
34	Fondren Library	3/22/2022 4:09 PM
35	The area around Fondren Library	3/22/2022 3:33 PM
36	Dallas Hall	3/22/2022 3:14 PM
37	outside library patio	3/22/2022 2:59 PM

38	Fraternity Row / SMU Blvd	3/22/2022 2:54 PM
39	Ford Stadium / The Boulevard / Dedman / Dallas Hall	3/22/2022 2:44 PM
40	The Boulevard	3/22/2022 2:36 PM
41	anything outdoors	3/22/2022 2:27 PM
42	DH lawn	3/22/2022 2:26 PM
43	none	3/22/2022 2:20 PM
44	-	3/22/2022 2:11 PM
45	Dallas hall	3/22/2022 1:10 PM
46	the library	3/22/2022 1:03 PM
47	No idea	3/22/2022 12:59 PM
48	Hughes Trigg	3/22/2022 12:52 PM
49	Mac's Place	3/22/2022 12:46 PM
50	dallas hall lawn	3/22/2022 12:44 PM
51	The area around Dallas hall lawn and the front lawn of my dorm (Crum Commons)	3/22/2022 12:40 PM
52	science quad	3/22/2022 12:28 PM
53	Dallas hall law, Hughes Trigg	3/22/2022 12:21 PM
54	Cox	3/22/2022 12:08 PM
55	the lawn	3/22/2022 11:54 AM
56	Dallas Hall or the Business Quad.	3/22/2022 11:48 AM
57	Dallas Hall Lawn	3/22/2022 11:46 AM
58	Armstrong Classroom	3/22/2022 11:38 AM
59	Cox Business School	3/22/2022 11:32 AM
60	Dallas Hall Lawn, the Boulevard	3/22/2022 11:30 AM
61	Engineering Buildings	3/22/2022 11:23 AM
62	cox	3/22/2022 11:14 AM
63	fondren	3/22/2022 11:10 AM
64	hughs trigg	3/22/2022 11:07 AM
65	I love the Business Library and feel I connect to it. Also, the reading room because it reminds me of an Ivy League.	3/22/2022 11:01 AM
66	Dallas Hall Lawn	3/22/2022 11:00 AM
67	boulevard	3/22/2022 10:56 AM
68	Outdoors	3/22/2022 10:40 AM
69	dallas hall	3/22/2022 10:37 AM
70	fondren area bc people from all organizations are there	3/22/2022 10:29 AM
71	Lawn, Gym	3/22/2022 10:19 AM
72	Law Quad	3/22/2022 10:19 AM
73	Fondren Library	3/22/2022 10:18 AM
74	Cox	3/22/2022 10:14 AM
75	Hughes-Trigg Student Center	3/22/2022 10:04 AM
76	Dallas hall lawn	3/22/2022 10:02 AM
77	Umph Cafeteria	3/22/2022 10:00 AM
78	cox patios	3/22/2022 9:48 AM
79	North side of campus	3/22/2022 9:47 AM
80	The Lyle Engineering Quad	3/22/2022 9:44 AM

81	The pathways and trees I pass by between classes	3/22/2022 9:34 AM
82	Dallas Hall	3/22/2022 9:28 AM
83	Art sculptures	3/22/2022 9:23 AM
84	dallas y'all lawn	3/22/2022 9:19 AM
85	Dallas Hall Lawn	3/22/2022 9:14 AM
86	I dont have any connection to a specific part of campus	3/22/2022 9:06 AM
87	Student athletes and business majors	3/22/2022 9:05 AM
88	As a STEM major probably science buildings	3/22/2022 8:48 AM
89	The dorm areas and the Fondren/Trigg area	3/22/2022 8:47 AM
90	Hughes-Trigg/Center of Campus	3/22/2022 8:30 AM
91	My building and my quad	3/22/2022 8:23 AM
92	cox buildings	3/22/2022 8:22 AM
93	Dallas Hall Lawn	3/22/2022 8:19 AM
94	Engineering quad	3/22/2022 8:05 AM
95	Athletics	3/22/2022 8:04 AM
96	Hughes trigg	3/22/2022 7:58 AM
97	dallas hall lawn	3/22/2022 7:44 AM
98	Fondren Library	3/22/2022 7:34 AM
99	Cox	3/22/2022 7:28 AM
100	Dallas hall lawn	3/22/2022 7:18 AM
101	Entrance of fondren facing Dallas hall lawn	3/22/2022 7:03 AM
102	The boulevard	3/22/2022 4:07 AM
103	Caruth Hall	3/22/2022 1:49 AM
104	Hughes Trigg	3/22/2022 1:25 AM
105	My commons	3/22/2022 1:16 AM
106	Meadows	3/22/2022 1:14 AM
107	The sorority houses, where I live. Fondren library	3/22/2022 1:13 AM
108	I feel really at home when I'm up near DHL/ Fondren library/ the students center	3/22/2022 1:12 AM
109	Perkins quad	3/22/2022 1:10 AM
110	Clements Hall Basement	3/22/2022 1:03 AM
111	Meadows building	3/22/2022 1:02 AM
112	The small quiet spaces	3/22/2022 12:59 AM
113	Cox School of Business	3/22/2022 12:59 AM
114	fondren	3/22/2022 12:57 AM
115	Dallas Hall lawn	3/22/2022 12:56 AM
116	Meadows	3/22/2022 12:55 AM
117	Fondren Library	3/22/2022 12:53 AM
118	Owen's arts center	3/22/2022 12:51 AM
119	Fondren Library	3/22/2022 12:48 AM
120	The walkway past the engineering quad.	3/22/2022 12:43 AM
121	North/Dedman College	3/22/2022 12:40 AM
122	Dallas Hall lawn	3/22/2022 12:39 AM
123	Lyle, Scholars Den, Ace	3/22/2022 12:36 AM

124	the walk way to the doak walker statu le	3/22/2022 12:35 AM
125	N/a	3/22/2022 12:33 AM
126	my dorm	3/22/2022 12:32 AM
127	Dallas Hall and Hyer	3/22/2022 12:31 AM
128	Fondren	3/22/2022 12:28 AM
129	Bridwell ,boulevard	3/22/2022 12:27 AM
130	Cox school of business	3/22/2022 12:26 AM
131	Dallas Hall	3/22/2022 12:26 AM
132	The new dorm area by Arnold dining	3/22/2022 12:25 AM
133	Library	3/22/2022 12:20 AM



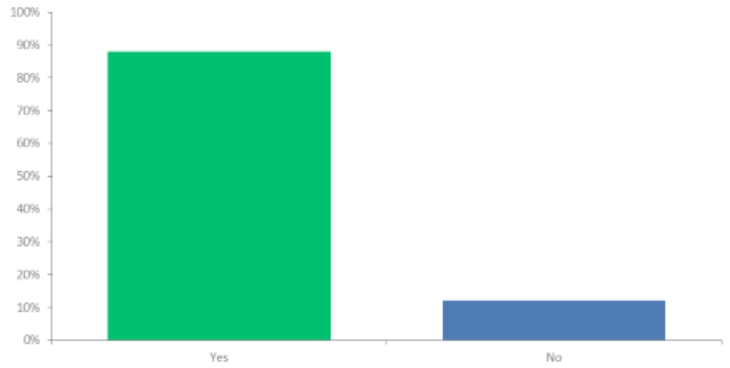
Q46: I use nature to relax during studies.

Answered: 133 Skipped: 42

ANSWER CHOICES	RESPONSES	
Yes	70.68%	94
No	29.32%	39
TOTAL		133

Q47: The campus outdoor environment is essential for my well-being and mental health.

Answered: 133 Skipped: 42



Q47: The campus outdoor environment is essential for my well-being and mental health.

Answered: 133 Skipped: 42

ANSWER CHOICES	RESPONSES	
Yes	87.97%	117
No	12.03%	16
TOTAL		133