

Frank Lloyd Wright and Our Attitude toward Nature

Theresa Grupico, lecturer, Department of Art and Design, Monmouth University

Abstract

The attitude that humans have the right to subdue nature has been ingrained in the Western worldview since the Ancient Greeks gave birth to Western Civilization. When the Greeks transitioned from a nomadic to an agricultural society and established city-states, they also set the pattern for understanding the civilized world as that which is centered on cities, towns, and the surrounding agricultural land, and for understanding the wilderness beyond these as deserving to be tamed and exploited. The architect Frank Lloyd Wright instead emerged from a cultural tradition that understood the United States as a Utopia not only in political or religious, but also in environmental terms. Romantic writers, landscape painters, and the Arts and Crafts Movement to which Wright belonged reacted against the negative effects of the Industrial Revolution on America's landscape as well as its people. Instead of looking to the Classical world, Wright looked to nature as a model. The result was an 'organic' architecture that challenged the Western worldview predominant since the Greeks and encouraged an attitude of coexistence with, rather than mastery over, nature.

Part 1. The Ancient Greeks and the Formation of Western Civilization's Attitude toward Nature

Western Civilization was born with the Ancient Greeks beginning in approximately the eighth century B.C.E. To them the West is indebted for its artistic, literary, and philosophical traditions; for mathematics, geometry, and science; and for basic values such as humanism, individualism, and democracy. The Ancient Greeks not only laid the foundations for our civilization, but also shaped our understanding of what it means to be 'civilized.' Part of this understanding involves the Western world's relationship with nature.

Ancient Greeks' Mastery over Their Environment: City-states and Agricultural Territory

A major characteristic of the Ancient Greek world is the existence of city-states (such as Athens and Sparta).¹ The formation of city-states begins in approximately the eighth century B.C.E., a period which generally marks the end of the Greeks' shift from a nomadic to a pastoral and finally to a more settled agricultural society.² Politically, the city-states were small, self-ruling

¹ Conant, C. and Thomas, C. G. *Citadel to City-State. The Transformation of Greece, 1200-700 B.C.E.* 1999. Bloomington. Indiana University Press. Murray, O. *Early Greece.* Second Edition. 1993. Cambridge, Mass. Harvard University Press. 62-65. Rhodes, P. J. *The Greek City-States. A Source Book.* 1986. Norman and London. University of Oklahoma Press. 14-23. Snodgrass, A. M. *Archaic Greece. The Age of Experiment.* 1980. Berkeley. University of California Press. 25-47, 85-122.

² Finley, M. I. *Early Greece. The Bronze and Archaic Ages.* 1982. New York. W. W. Norton and Company. 61-65, 69. Murray, O. *Early Greece.* Second Edition. 1993. Cambridge, Mass. Harvard University Press. 43-45.

entities.³ Geographically, the city-states were comprised of urban centers surrounded by agricultural territories.⁴

Greek Literature: Homer

The Western literary tradition largely begins with Homer, whose *Iliad* and *Odyssey* are generally believed to date back to the eighth-century B.C.E., and thus the same period that saw the birth of the Greek city-states.⁵ The *Odyssey* records the story of the Greek hero Odysseus' quest, after the Trojan War, to return home to Ithaca, an island between mainland Greece and the West Greek lands of South Italy and Sicily, which the Greeks had already begun to colonize in the eighth century. In Book 9, "New Coasts and Poseidon's Son," believed to be set in Sicily,⁶ Odysseus states:

In the next land we found were Kyklopes (Cyclopes),
giants, louts, without a law to bless them.
In ignorance leaving the fruitage of the earth in mystery
to the immortal gods, they neither plow
nor sow by hand, nor till the ground,....
Kyklopes have no muster and no meeting,....
but each one dwells in his own mountain cave
dealing out rough justice to wife and child....
(lines 110-120, trans. R. Fitzgerald)

While the cyclopes are of course mythical, this particular description may reveal the Greeks' attitude towards the indigenous Sicilian and Italic tribes they encountered as they established their colonies and set up new city-states. Homer's description of the "other"—as lawless, as not practicing agriculture, as existing outside of a social order—simultaneously and by contrast provides a description of the Greek "self"—as law-abiding, as practicing agriculture, as existing within a social order. Mastering the land, mastering human behavior, and 'coming out of the cave' are all linked. Those who do not do so are "ignorant." Here, Homer has already set forth a dualistic worldview of civilized versus barbarian,⁷ whereby being civilized is

Snodgrass, A. M. *Archaic Greece. The Age of Experiment*. 1980. Berkeley. University of California Press. 35-40. The nomadic period had followed upon the collapse of the Minoan-Mycenaean palatial system, c. 1200 B.C.E.

³ Finley, M. I. *Early Greece. The Bronze and Archaic Ages*. 1982. New York. W. W. Norton and Company. 88-89. Murray, O. *Early Greece*. Second Edition. 1993. Cambridge, Mass. Harvard University Press. 62-63.

⁴ Owens, E. J. *The City in the Greek and Roman World*. 1991. New York. Routledge. 51. Rhodes, P. J. *The Greek City-States. A Source Book*. 1986. Norman and London. University of Oklahoma Press. 14.

⁵ Finley, M. I. *Early Greece. The Bronze and Archaic Ages*. 1982. New York. W. W. Norton and Company. 85-88. Lawall, S. and Mack, M. Eds. *The Norton Anthology of World Masterpieces*. Vol. 1. Seventh Edition. 1999. New York. W. W. Norton and Company. 101. Snodgrass, A. M. *Archaic Greece. The Age of Experiment*. 1980. Berkeley. University of California Press. 27-29.

⁶ Hurwit, J. M. *The Art and Culture of Early Greece, 1100-480 B.C.* 1989. Ithaca. Cornell University Press. 77-78, 80.

⁷ Hurwit, J. M. *The Art and Culture of Early Greece, 1100-480 B.C.* 1989. Ithaca. Cornell University Press. 77-78. Murray, O. *Early Greece*. Second Edition. 1993. Cambridge, Mass. Harvard University Press. 62.

associated with taming the wild and controlling our physical environment. It is no accident that the Cyclops Polyphemos whom Odysseus encounters is the son of Poseidon, god of the sea and of earthquakes, while Odysseus himself is protected by Athena, goddess of wisdom and of civilization.⁸

While Poseidon is considered one of the Olympian deities along with Athena, this pitting of Athena against Poseidon, present already in Homer, foretells the evolution of Greek religion and thought: away from nature deities and toward more philosophical and abstract understandings of the divine, until, by the time of Plato, and especially by the Hellenistic and Roman periods, the natural and supernatural or spiritual realms would be completely divorced.⁹ The dualistic worldview would be reinforced by Judeo-Christian beliefs. The Greeks' attitude of humans' domination over nature would gain support from the Bible, where, in Genesis (1:26), God says, "Let us make man in our image, after our likeness. And let them have dominion over the fish of the sea and over the birds of the heavens and over the livestock and over all the earth and over every creeping thing that creeps on the earth."¹⁰

Greek City Planning: The Urban Grid

The Greeks not only showed 'dominion over the land' by engaging in agriculture, building cities, and colonizing new territories, but furthermore subjected the landscape itself to a process of regularization and rationalization. Particularly when they founded new cities, as in Sicily and South Italy, they laid these cities out on grid plans.¹¹ The earliest city plans—such as the eighth-century-B.C.E. layouts of Syracuse, Megara Hyblaea, and Naxos, Sicily—did not yet have completely rectilinear grids, in that the avenues and cross-streets were not all perpendicular. But already the streets themselves were parallel, housing blocks equidistant, and individual housing allotments fairly equal.¹² From the sixth century B.C.E. onwards, the grids were increasingly sophisticated, rectilinear, and mathematically accurate.¹³ Modules were used so that all the parts

⁸ Burkert, W. *Greek Religion. Archaic and Classical*. Translated by Raffan, J. 1985. Cambridge, Mass. Harvard University Press. 139-142.

⁹ Discussion of, and sources for, the development of Greek religion and thought deserve more thorough treatment than can be given here. In addition to Burkert, see also Guthrie, W. K. C. *The Greek Philosophers from Thales to Aristotle*. 1950. New York. Philosophical Library.

¹⁰ English Standard Version 2001.

¹¹ Di Vita A. Urban Planning in Ancient Sicily. In Pugliese Carratelli, G. Ed. *The Western Greeks. Classical Civilization in the Western Mediterranean*. 1996. London. Thames and Hudson, Ltd. 263-308. Grupico T. *The Influence of Urban Planning on Temple Design in West Greece*. Ph.D. diss. 2008. New Brunswick. Rutgers, the State University of New Jersey. Mertens, D. and Greco, E. Urban Planning in Magna Graecia. In Pugliese Carratelli, G. Ed. *The Western Greeks. Classical Civilization in the Western Mediterranean*. 1996. London. Thames and Hudson, Ltd. 243-262. Owens, E. J. *The City in the Greek and Roman World*. 1991. New York. Routledge.

¹² Di Vita A. Urban Planning in Ancient Sicily. In Pugliese Carratelli, G. Ed. *The Western Greeks. Classical Civilization in the Western Mediterranean*. 1996. London. Thames and Hudson, Ltd. 266-277.

¹³ Di Vita A. Urban Planning in Ancient Sicily. In Pugliese Carratelli, G. Ed. *The Western Greeks. Classical Civilization in the Western Mediterranean*. 1996. London. Thames and Hudson, Ltd. 278-307. Mertens, D. and Greco, E. Urban Planning in Magna Graecia. In Pugliese Carratelli, G. Ed. *The Western Greeks. Classical Civilization in the Western Mediterranean*. 1996. London. Thames and Hudson, Ltd. 243-262. Owens, E. J. *The City in the Greek and Roman World*. 1991. New York. Routledge. 51-93.

of the grid would be in proportion to each other and to the whole.¹⁴ At Metaponto, South Italy, for example, the housing block width equaled 120 Greek feet (of c. 29.167 cm.), the width of the primary avenue equaled 80 feet, the lot width equaled 60 feet, the remaining avenue widths equaled 40 feet, and the normal street width equaled 20 feet.¹⁵ While many of the earliest grids were laid out in the colonial context of South Italy and Sicily, by the fifth century BCE, they had spread to Athens itself (the Piraeus area) and into East Greece.¹⁶ When they conquered the Greek world, the Romans maintained the Greeks' rational approach and continued the use of grid plans, often building directly over the Greek city plans.¹⁷

The extent to which the Greeks and Romans would go to rationalize and regularize the natural landscape is demonstrated at least as early as the late-sixth-to-early-fifth-century B.C.E., when the valley and surrounding hillside of Agrigento, Sicily were transformed with a series of five terraces to accommodate the city grid. Nor was such regularization confined to the city grid; sanctuaries as well as agricultural territories were also laid out on grids.¹⁸

The increasing regularization of the landscape reflects the increasingly rational and scientific worldview of the Ancient Greeks, and is a physical manifestation of the dualistic worldview already present in Homer. The rational, mathematical urban grids on which the city-states were laid out were in direct contrast to the untamed wilderness that lay beyond. In laying out these grids, the Greeks were literally constructing 'civilization.' Moreover, since the city-states were understood as not only geographical, but also socio-political, entities, the physical order of city grids reflected and reinforced the socio-political values of order and lawfulness. The literal taming of the wilderness that occurred when laying out cities thus becomes intertwined with the establishment of political and social order. Nature thus becomes associated with that which threatens this order. Such an association helps to justify humans' domination over nature.

¹⁴ Grupico T. *The Influence of Urban Planning on Temple Design in West Greece*. Ph.D. diss. 2008. New Brunswick. Rutgers, the State University of New Jersey. 61-185.

¹⁵ Grupico T. *The Influence of Urban Planning on Temple Design in West Greece*. Ph.D. diss. 2008. New Brunswick. Rutgers, the State University of New Jersey. 181-182.

¹⁶ Vitruvius. Book 1. First Principles and the Layout of Cities. In *Ten Books on Architecture*. Translation by Rowland, I. D. Commentary and Illustrations by Howe, T. N. 2006. New York. Cambridge University Press. 21-32. Howe, T. N. Commentary. In *Ten Books on Architecture*. Translation by Rowland, I. D. Commentary and Illustrations by Howe, T. N. 2006. New York. Cambridge University Press. 167, 173. Also Castagnoli, F. *Ippodamo di Mileto (e l'urbanistica a pianta ortogonale)*. 1956. Rome. De Luca Publishers. Owens, E. J. *The City in the Greek and Roman World*. 1991. New York. Routledge. 51-93.

¹⁷ Owens, E. J. *The City in the Greek and Roman World*. 1991. New York. Routledge. 94-108.

¹⁸ On the regularization of sanctuary layouts: Bergquist, B. *The Archaic Greek Temenos. A Study of Structure and Function*. 1967. Lund. C. W. K. Glerup. Grupico T. *The Influence of Urban Planning on Temple Design in West Greece*. Ph.D. diss. 2008. New Brunswick. Rutgers, the State University of New Jersey. 28-59. Ito, J. *Theory and Practice of Site Planning in Classical Sanctuaries*. 2002. Kumamoto. Kyushu University Press. On the regularization of agricultural territories: Carter, J. C. Agricultural Settlements. In Pugliese Carratelli, G. Ed. *The Western Greeks. Classical Civilization in the Western Mediterranean*. 1996. London. Thames and Hudson, Ltd. 1996. 361-364.

Greek Temples: Location

The dualistic worldview that pits humans against nature also manifests itself in the locations of Ancient Greek temples. Greek temples were often placed along the city-states' boundaries, at the borders of both the agricultural territory and of the urban area itself. The temples served as landmarks, letting foreigners know they were about to enter someone else's political territory and letting citizens know that they had arrived home. The temples also architecturally demarcated the space of the civilized world from that of the wilderness beyond it.¹⁹

Greek temples were also often located on the acropolis, at the highest topographical point of the city-state, the most famous example being the Parthenon on the Acropolis of Athens.²⁰ Placing them at the highest point ensured that the temples could be seen from great distances, both within and even beyond the city-state. But such placement also reinforced the message that the man-made monuments of civilization stood above the natural realm. The temples' visual domination over the landscape was an architectural metaphor for the Greeks' mastery over their natural environment.

Greek Temples: Architecture

The architecture of Greek temples further reflects and reinforces the Greeks' dualistic worldview pitting humans against nature. Firstly, the temples are typically raised on stepped bases which would have increased their height, sometimes dramatically so.²¹ The Temple of Olympian Zeus at Agrigento, Sicily, for example, is raised on a six-step base.²² The increased elevation would have functioned, as did the placement of temples on acropolises, to allow the temple to visually dominate the surrounding landscape. In addition, by raising the temple off of the ground, the stepped bases literally as well as visually separated the temple from the natural soil.

In their temples, moreover, the Greeks established an architectural vocabulary that would transcend their own historical moment and be embraced not only by the Romans,²³ but by generations of Westerners from the Renaissance onward. This vocabulary includes the

¹⁹ Alcock, S. E. and Osborne, R. Eds. *Placing the Gods. Sanctuaries and Sacred Space in Ancient Greece*. 1994. New York. Oxford University Press. De Polignac, F. *Cults, Territory, and the Origins of the Greek City-State*. Translated by Lloyd, J. 1995. Chicago. University of Chicago Press.

²⁰ Sources and discussion of the Parthenon and Athenian Acropolis are too numerous to be fully addressed here. For good overviews: Gruben, G. *Griechische Tempel und Heiligtümer*. 2001. Munich. Hirmer Verlag. 166-190. Hurwit, J. M. *The Acropolis in the Age of Pericles*. 2004. New York. Cambridge University Press. Esp. 49-86, 106-154.

²¹ For overviews of Greek temple architecture: Dinsmoor, W. B. *The Architecture of Ancient Greece. An Account of its Historic Development*. Third Edition Revised. 1975. New York. W. W. Norton and Company. Gruben, G. *Griechische Tempel und Heiligtümer*. 2001. Munich. Hirmer Verlag.

²² Dinsmoor, W. B. *The Architecture of Ancient Greece. An Account of its Historic Development*. Third Edition Revised. 1975. New York. W. W. Norton and Company. 101-104. Gruben, G. *Griechische Tempel und Heiligtümer*. 2001. Munich. Hirmer Verlag. 328-332.

²³ Vitruvius. Book 3. Temples. Book 4. Corinthian, Doric, and Tuscan Temples. In *Ten Books on Architecture*. Translation by Rowland, I. D. Commentary and Illustrations by Howe, T. N. 2006. New York. Cambridge University Press. 46-63. Howe, T. N. Commentary. In *Ten Books on Architecture*. Translation by Rowland, I. D. Commentary and Illustrations by Howe, T. N. 2006. New York. Cambridge University Press. 143-151.

colonnade, one of the most recognizable features of Classical architecture. Based on post-and-lintel construction, the colonnade aesthetically consists of straight, geometric lines as opposed to the organic lines of nature. The verticality of the columns reinforces the temple's visual domination over the surrounding landscape.

The geometric emphasis seen in the columns is reinforced by Greek temples' rectilinear ground plan. In addition, the temples were laid out, much like the city grids, according to modules that allowed for proportionality among the temples' parts and thus of the parts to the whole.²⁴ The emphases on geometry and proportions allowed Greek temples to attain balance, symmetry, harmony—in a word, Order. The Classical Greek temple is the architectural embodiment of the Classical Greeks' achievements of individualism and democracy: the harmonious integration of individual parts within the whole.

In temple architecture, the means by which the parts come together is rational and mathematical. The sculptural programs adorning many temples link the use of reason, and the suppression of the irrational, to social and political order.²⁵ These programs often depict battles between Greek deities, or mythological battles. As was already demonstrated in Homer, however, these battles reflect the Greeks' dualistic worldview, in which Nature is associated with the irrational and with that which needs to be suppressed or overcome in order for that social and political order to thrive. The west pediment of the Parthenon, erected at the height of Greek democracy, once again pits Athena, the goddess of wisdom and civilization, against Poseidon, the nature god. The south side of the Parthenon's Doric frieze adorning its colonnade depicts the Centauromachy, a battle between the Greek tribe of Lapiths and the centaurs who invade the wedding, and attempt to abduct the bride, of one of the Lapiths.²⁶ The mythological creature of the centaur symbolizes humans' irrational side, the side which each individual needs to control or suppress if he or she wants to maintain the freedoms allowed by a democracy. The fact that the centaur is half-human, half-horse visually reminds us that this 'irrational' side is physiologically bound with our 'animal' side.²⁷

Conclusion: The Classical Legacy

Western civilization is greatly indebted to the Classical, and particularly the Ancient Greek, world, for so much that is great about our own world: our values of humanism, individualism, democracy; our faith in reason, science, and our own potential to improve ourselves and our

²⁴ Grupico T. *The Influence of Urban Planning on Temple Design in West Greece*. Ph.D. diss. 2008. New Brunswick. Rutgers, the State University of New Jersey. 185-209.

²⁵ See, for example: Stewart, A. *Art, Desire, and the Body in Ancient Greece*. 1997. New York. Cambridge University Press.

²⁶ Stewart, A. *Art, Desire, and the Body in Ancient Greece*. 1997. New York. Cambridge University Press. 191-195.

²⁷ The Parthenon's other sides depict similarly symbolic battles (between Greeks and Amazons, Greeks and Trojans, and between the Olympian gods and Giants).

environment. Greek philosophy encouraged higher thinking. But to Greek thought we also owe our dualistic worldview, which conceives of reality in terms of conflict and opposites: order vs. chaos, rational vs. irrational. Such a conception of reality pits civilization *against* nature, and justifies humans' domination over nature. Our attitude toward nature is thus deeply culturally rooted. When generations of students are being educated in our school systems to write theme papers on "man vs. nature" as one of the four main literary conflicts, we should not be surprised that generations of adults are not more concerned about preserving the environment.

Part 2. Frank Lloyd Wright

Background: The Industrial Revolution and the Romantic Movement

To quote Barbara Novak: "intense reverence for nature came only with the realization that nature could be lost."²⁸ It is no accident that the nineteenth-century Romantic Movement arose in the wake of the Industrial Revolution. While it is true that, since the time of the Ancient Greeks, civilization had always prospered at the expense of nature, what changed with the Industrial Revolution were the pace at, and the extent to which, nature was now being destroyed. The detrimental effects of machines, factories, mining, steam engines, and railroads on the natural environment were all too apparent. Moreover, while there had been cities and towns since the Ancient period, the Industrial Revolution sparked a level of urbanization not seen before.²⁹ The population of Paris, for example, was 547,756 in 1801 and 2,344,550 in 1886.³⁰ As the lower classes flocked from rural areas to cities as well as new factory or mining towns in search of work, concern grew not only regarding the physical and sanitary,³¹ but also the dehumanizing,³² conditions of their increasingly overcrowded environment.

Romantic writers and artists reacted with precisely the "intense reverence for nature" of which Novak speaks. Instead of pitting humans against nature, American writers such as Emerson, Thoreau, and Whitman, as well as landscape artists, sought greater communion of humans with nature. Instead of pitting the divine against the natural realm, they understood the

²⁸ Novak, B. *Nature and Culture. American Landscape and Painting 1825-1875*. 1980. New York. Oxford University Press. 5.

²⁹ Benevolo, L. *History of Modern Architecture. Volume One. The Tradition of Modern Architecture*. 1984. Cambridge, MA. The M.I.T. Press. 39. Bullock, N. and Read, J. *The Movement for Housing Reform in Germany and France 1840-1914*. 1985. Cambridge, MA. Cambridge University Press. 17-23.

³⁰ Bullock, N. and Read, J. *The Movement for Housing Reform in Germany and France 1840-1914*. 1985. Cambridge, MA. Cambridge University Press. 287, Table 1.

³¹ Benevolo, L. *History of Modern Architecture. Volume One. The Tradition of Modern Architecture*. 1984. Cambridge, MA. The M.I.T. Press. 38-95, 127-164. Bullock, N. and Read, J. *The Movement for Housing Reform in Germany and France 1840-1914*. 1985. Cambridge, MA. Cambridge University Press. 17-23, 110-154, 342-356. Shapiro, A.-L. *Housing the Poor of Paris, 1850-1902*. 1985. Madison. The University of Wisconsin Press.

³² Morris, W. The Art of the People. In Kelvin, N. Ed. *William Morris on Art and Socialism*. 1999. Mineola, New York. 29-32. Morris, W. Useful Work versus Useless Toil. In Kelvin, N. Ed. *William Morris on Art and Socialism*. 1999. Mineola, New York. 128-143. Simmel, G. The Metropolis and Mental Life. In Sennett, R. Ed. *Classic Essays on the Culture of Cities*. 1969. New York. Appleton-Century-Crofts. 47-60.

divine as immanent within this realm.³³ So Emerson says in his essay, *Nature*, that “the noblest ministry of nature is to stand as the apparition of God. It is the organ through which the universal spirit speaks to the individual.”³⁴ Likewise, the Hudson River School of American landscape painters including its founder Thomas Cole, Frederick Edwin Church, and Albert Bierstadt sought to visually capture the ‘sublime’ or spirit in nature, and in doing so, to encourage preservation.³⁵ Paintings such as Cole’s *River in the Catskills*, which showed the impact of the railroad on the environment,³⁶ reminded the viewer of the natural beauty that would be lost if industry were allowed to encroach upon America’s as-yet-unspoiled landscape, which was increasingly understood as integral to its national identity.³⁷ The United States had been founded on Utopian ideals of freedom and individualism, and the open and uniquely American landscape became symbolic of those ideals.

The reverence for nature exhibited by nineteenth-century writers and artists was echoed, moreover, by other Americans who had begun to advocate for greater preservation, particularly in the latter half of the century. Yellowstone National Park was established in 1872, to be followed in 1899 by the establishment of Yosemite and Sequoia National Parks. In 1892, John Muir founded the Sierra Club. In the same half-century, Frederick Law Olmsted, the father of American landscape architecture, created Central Park in Manhattan as well as other public parks to provide those who lived in cities with access to nature.³⁸

Background: The Industrial Revolution and the Arts and Crafts Movement

The Industrial Revolution also directly impacted architecture and design, by introducing modern building materials such as glass, steel, and reinforced concrete as well as prefabrication, all of which now competed with more traditional materials and building methods.³⁹ Industry also introduced mass-produced, factory-made goods that competed with traditional hand-craftsmanship. The Arts and Crafts Movement arose from concerns over both the quality of work being produced by the machine and the dehumanizing effect that the machine was having

³³ Novak, B. *Nature and Culture. American Landscape and Painting 1825-1875*. 1980. New York. Oxford University Press. 3-44.

³⁴ Emerson, R. W. *Nature*. In Poirier, R. and Vance, W. L. Eds. *American Literature* Vol. 1. 1970. Boston. Little, Brown and Company. 462.

³⁵ Czestochowski, J. S. *The American Landscape Tradition. A Study and Gallery of Paintings*. 1982. New York. E. P. Dutton, Inc. 29-33. Novak, B. *Nature and Culture. American Landscape and Painting 1825-1875*. 1980. New York. Oxford University Press. 3-77, 157-182. Roque, O. R. The Exaltation of American Landscape Painting. In *American Paradise. The World of the Hudson River School*. 1988. New York. The Metropolitan Museum of Art. Distributed by Harry N. Abrams, Inc. 21-48.

³⁶ Czestochowski, J. S. *The American Landscape Tradition. A Study and Gallery of Paintings*. 1982. New York. E. P. Dutton, Inc. 39-40.

³⁷ Novak, B. *Nature and Culture. American Landscape and Painting 1825-1875*. 1980. New York. Oxford University Press. 3-17. Czestochowski, J. S. *The American Landscape Tradition. A Study and Gallery of Paintings*. 1982. New York. E. P. Dutton, Inc. 12-17.

³⁸ Fein, A. *Frederick Law Olmsted and the American Environmental Tradition*. 1972. New York. George Braziller.

³⁹ Benevolo, L. *History of Modern Architecture. Volume One. The Tradition of Modern Architecture*. 1984. Cambridge, MA. The M.I.T. Press. 3-24. Giedion, S. *Space, Time and Architecture. The Growth of a New Tradition*. Fifth Edition. 2008. Cambridge, MA. Harvard University Press. 163-211, 322-328.

on the workers.⁴⁰ In Britain, men such as John Ruskin, William Morris, and Charles Ashbee looked to the Medieval Period as a model for crafts guilds which fostered a more direct and meaningful connection between the workers and their work, with Ashbee setting up his own guild. They preserved more traditional methods of production, used more traditional materials, and turned to nature for inspiration for their designs. In America, the movement was led by Gustave Stickley (1858-1942), whose handcrafted furniture emphasized natural materials and whose Craftsman Style homes emphasized harmony between the architecture and the site.⁴¹

Frank Lloyd Wright's architecture, then, should not be understood in a vacuum. Rather, the nineteenth century's changing attitude toward nature, and especially the reverence for the distinctly American landscape that helped define this country's identity, sowed the seeds for a new architectural vocabulary that might challenge the Classical one.

Frank Lloyd Wright's 'Organic' Architecture

Wright's ideas for an 'organic' architecture were at least partly rooted in his experience with the architect Louis Sullivan, in whose office Wright had worked before opening up his own firm.⁴² Sullivan was a master of ornamentation derived from nature,⁴³ and Wright recalls in his autobiography that Sullivan described this ornamentation in terms of 'plasticity,' or continuity among the parts. What Sullivan did for a building's ornamentation, Wright now wanted to do for the building as a whole.⁴⁴ He states, "Conceive now that an entire building might grow up out of conditions as a plant grows up out of soil....Dignified as a tree in the midst of nature....I now propose an ideal for the architecture of the machine age, for the ideal American building. Let it grow up in that image. The tree."⁴⁵ Instead of turning to Classical architecture for a model, then, Wright turned to nature.⁴⁶ Classical architecture had sought to attain harmony in rational terms

⁴⁰ Benevolo, L. *History of Modern Architecture. Volume One. The Tradition of Modern Architecture*. 1984. Cambridge, MA. The M.I.T. Press. 157-187. Morris, W. *The Art of the People*. In Kelvin, N. Ed. *William Morris on Art and Socialism*. 1999. Mineola, New York. 29-32. Kelvin, N. Ed. *William Morris on Art and Socialism*. 1999. Mineola, New York. Pevsner, N. *Pioneers of Modern Design. From William Morris to Walter Gropius*. Fourth Edition. Revised and Expanded. 2005. New Haven. Yale University Press. 12-57. Todd, P. *The Arts and Crafts Companion*. 2004. New York. Bulfinch Press.

⁴¹ Stickley, G. *Gustav Stickley's Craftsman Homes and Bungalows*. 2009. New York. Skyhorse Publishing, Inc. Stickley, G. *Simplicity and Domestic Life*. In Mumford, L. Ed. *Roots of Contemporary American Architecture. 37 Essays from the Mid-Nineteenth Century to the Present*. 1972. New York. Dover Publications, Inc. 299-305.

⁴² Wright worked for the architectural firm of Dankmar Adler and Louis Sullivan from 1888 to 1893. On this period of his life: Wright, F. L. *An Autobiography*. 1943. New York. Duell, Sloan and Pearce. 89-111. Additionally on Wright's organic architecture, see among others Giedion, S. *Space, Time and Architecture. The Growth of a New Tradition*. Fifth Edition. 2008. Cambridge, MA. Harvard University Press. 414-417.

⁴³ On Sullivan's ornamentation: O'Gorman, J. E.. *Three American Architects. Richardson, Sullivan, and Wright, 1865-1915*. 1991. Chicago. The University of Chicago Press. 69-92.

⁴⁴ Wright states, "This magic word 'plastic' was a word Louis Sullivan himself was fond of using in reference to his idea of ornamentation....But now, why not the larger application in the structure of the building itself in this sense? Why a principle working in the part if not living in the whole?" Wright, F. L. *An Autobiography*. 1943. New York. Duell, Sloan and Pearce. 146. See also pp. 270-271.

⁴⁵ Wright, F. L. *An Autobiography*. 1943. New York. Duell, Sloan and Pearce. 147.

⁴⁶ On Wright and nature: Hoffmann, D. *Frank Lloyd Wright. Architecture and Nature*. 1986. New York. Dover Publications, Inc. Wright, F. L. "Nature as Architect." In Mumford, L. Ed. *Roots of Contemporary American*

of math, proportion, and geometry. Wright did not turn his back on these; he geometricized and abstracted ornamentation derived from natural motifs,⁴⁷ and his reworking of the modular system proved influential to Modern architecture.⁴⁸ Yet whereas Classical architecture had come to symbolize civilization and order *as opposed to* ‘the wilderness,’ Wright’s architecture instead embraced that wilderness, and it did so in ways that were distinctly Anti-Classical.

Materials

Among the ways that Wright’s architecture, particularly his domestic architecture, attained its ‘organic’ quality was his use of materials. As did Stickley and others of the Arts and Crafts Movement, Wright embraced the use of natural materials. Using wood, for example, for both the furniture and the structural elements of a house, he created visual continuity between the architecture itself and the space it contained. But Wright also went further in recognizing that certain materials were more appropriate than others for certain sites.⁴⁹ Thus, at Fallingwater (the Kaufmann House), located in the woods of Bear Run, Pennsylvania, he used locally quarried stone for much of the house’s interior as well as parts of its exterior.⁵⁰ Instead of plastering over the stone, he left it exposed, and instead of having it cut smooth—which would have created more perfectly geometric planes—he left it rough and visibly irregular and uneven. Even more irregular were the original boulders from the picnic site of his clients, the Kaufmanns, which Wright left intact in front of the hearth at Fallingwater.

Wright pushed the irregularity even further at Taliesin West, his own house and workshop in Scottsdale, Arizona and the culmination of his Prairie Style.⁵¹ Here, Wright’s mixture of local rock with concrete resulted in architecture that visibly echoed the surrounding mountains. In addition, the use of concrete, a plastic material, allowed Wright to break from the mold of walls as completely flat, perpendicular, planes, and to instead create walls that could be

Architecture. 37 Essays from the Mid-Nineteenth Century to the Present. 1972. New York. Dover Publications, Inc. 132-140.

⁴⁷ Wright, F. L. *An Autobiography*. 1943. New York. Duell, Sloan and Pearce. 103.

⁴⁸ Van Zanten, D. Schooling the Prairie School. Wright’s Early Style as a Communicable System. In In Bolon, C. R., Nelson, R. S., and Seidel, L. Eds. *The Nature of Frank Lloyd Wright*. 1988. Chicago. The University of Chicago Press. 70-84.

⁴⁹ Wright, F. L. *An Autobiography*. 1943. New York. Duell, Sloan and Pearce. 148-149.

⁵⁰ On Fallingwater: Blake, P. *The Master Builders. Le Corbusier/Mies Van Der Rohe/Frank Lloyd Wright*. 1996. New York. W. W. Norton and Company. 380. Kaufmann, E. Jr. *Fallingwater. A Frank Lloyd Wright Country House*. 1986. New York. Abbeville Press Publishers.

⁵¹ On Taliesin West: Blake, P. *The Master Builders. Le Corbusier/Mies Van Der Rohe/Frank Lloyd Wright*. 1996. New York. W. W. Norton and Company. 384-387. Levine, N. Frank Lloyd Wright’s Own Houses and His Changing Concept of Representation. In Bolon, C. R., Nelson, R. S., and Seidel, L. Eds. *The Nature of Frank Lloyd Wright*. 1988. Chicago. The University of Chicago Press. 48-53. Smith, K. *Frank Lloyd Wright’s Taliesin and Taliesin West*. 1997. New York. Harry N. Abrams, Inc. 87-123. On Wright’s Prairie Style houses generally: O’Gorman, J. E.. *Three American Architects. Richardson, Sullivan, and Wright, 1865-1915*. 1991. Chicago. The University of Chicago Press. 133-154.

more sculptural. So the residential wing of Taliesin West contains V-shaped channels “said to have been inspired by the striations Wright observed on the walls of a nearby canyon.”⁵²

Wright’s use of local stone for both a building’s interior and exterior created a visible connection not only between the building’s parts, but also between the building and the natural site itself. Allowing the stones to maintain their irregular quality challenged the premises of rationalism and regularization on which Classical architecture was based, and by means of which it emphasized order. Wright was creating an order that embraced the irregular.

Breaking the Box

It was noted above that one of the hallmarks of Classical temples is their colonnade, and that the verticality of the columns, together with the facts that the temples are elevated atop stepped bases and often located on top of hills, results in architecture that dominates, rather than integrates with, the surrounding natural landscape. In developing his vocabulary for organic architecture, Wright turned not to Classical temples but to the American prairie. In his autobiography, he states, “I saw that a little height on the prairie was enough to look like much more....I had an idea that the horizontal planes in buildings, those planes parallel to the earth, identify themselves with the ground—make the building belong to the ground.”⁵³

The traditional house, much like the Classical temple, was built upward, with the different levels resting one directly above the other and being enclosed by four vertical planes. As seen in the Robie House in Oak Park, Illinois, for example, one way that Wright was able to instead emphasize horizontal planes was by partially staggering the different levels, so that the house has the appearance of a series of stepped terraces.⁵⁴ Thus, Wright’s emphasis on horizontal planes challenges not only Classical verticality, but also Classical axially, balance and symmetry, and emphasizes on geometry and rectilinearity.⁵⁵

Another way that Wright was able to emphasize horizontal planes was through his employment of cantilevering, now made possible by concrete reinforced from within with steel tension rods and thus strong enough to create horizontal planes that no longer needed external supports. Since they did not need traditional supports, cantilevers freed Wright from the

⁵² Smith, K. *Frank Lloyd Wright’s Taliesin and Taliesin West*. 1997. New York. Harry N. Abrams, Inc. 99. Wright’s exploitation of concrete to create organic architecture would culminate in the Solomon R. Guggenheim Museum in New York, finished in 1959.

⁵³ Wright, F. L. *An Autobiography*. 1943. New York. Duell, Sloan and Pearce. 139-140. See also Blake, P. *The Master Builders. Le Corbusier/Mies Van Der Rohe/Frank Lloyd Wright*. 1996. New York. W. W. Norton and Company. 315-316.

⁵⁴ On the Robie House: Blake, P. *The Master Builders. Le Corbusier/Mies Van Der Rohe/Frank Lloyd Wright*. 1996. New York. W. W. Norton and Company. 314-315. Giedion, S. *Space, Time and Architecture. The Growth of a New Tradition*. Fifth Edition. 2008. Cambridge, MA. Harvard University Press. 409-411. Hoffmann, D. *Frank Lloyd Wright’s Robie House. The Illustrated Story of an Architectural Masterpiece*. 1984. New York. Dover Publications, Inc.

⁵⁵ Blake, P. *The Master Builders. Le Corbusier/Mies Van Der Rohe/Frank Lloyd Wright*. 1996. New York. W. W. Norton and Company. 315.

restrictions of Classical post-and-lintel construction.⁵⁶ The culmination of such freedom was Fallingwater, where the horizontal planes jut out above the flowing stream and waterfall below.⁵⁷ Here, Wright employed the horizontal planes to integrate the house with its hilly Pennsylvania setting. At Fallingwater as at Taliesin West, Wright broke with the Classical tenets of balance and symmetry, geometry and rectilinearity. The result was not chaos, but a new kind of harmony, one in which architecture becomes one with nature, rather than dominating it. As Edgar Kaufmann, Jr. has said of Fallingwater:

House and site together form the very image of man's desire to be at one with nature, equal and wedded to nature. Without drawing on tradition, without relying on precedent, Fallingwater was created by Frank Lloyd Wright as a declaration that in nature man finds his spiritual as well as his physical energies, that a harmonious response to nature yields the poetry and joy that nourish human living.⁵⁸

Conclusion

The arts helped to formulate Western culture's attitude toward nature, and they can help to change it. Architecture can play a particularly significant role because of the visual message that it can send. Houses such as Taliesin West and Fallingwater testify that humans can create works of great beauty that harmonize with, rather than dominate, their natural surroundings, and moreover, that this beauty is enhanced precisely due to those surroundings. Such houses testify that, as much as modern technology has the power to destroy nature, it can also be used to foster harmony with, and greater appreciation of, nature.

Not everyone can live in a Taliesin West or a Fallingwater. But everyone can appreciate that the view outside the window is better than staring at the four walls, and that something deep in our human souls would be lost if that view were lost. Architecture that fosters greater communion with nature ultimately fosters our spiritual well-being. Preserving the environment is ultimately about preserving our own humanity.

References

- Alcock, S. E. and Osborne, R. Eds. *Placing the Gods. Sanctuaries and Sacred Space in Ancient Greece*. 1994. New York. Oxford University Press.
- Benevolo, L. *History of Modern Architecture. Volume One. The Tradition of Modern Architecture*. 1984. Cambridge, MA. The M.I.T. Press.
- Bergquist, B. *The Archaic Greek Temenos. A Study of Structure and Function*. 1967. Lund. C. W. K. Glerup.

⁵⁶ Wright, F. L. *An Autobiography*. 1943. New York. Duell, Sloan and Pearce. 147-148.

⁵⁷ Blake, P. *The Master Builders. Le Corbusier/Mies Van Der Rohe/Frank Lloyd Wright*. 1996. New York. W. W. Norton and Company. 380. Kaufmann, E. Jr. *Fallingwater. A Frank Lloyd Wright Country House*. 1986. New York. Abbeville Press Publishers. 90, 96.

⁵⁸ Kaufmann, E. Jr. *Fallingwater. A Frank Lloyd Wright Country House*. 1986. New York. Abbeville Press Publishers. 66.

- Blake, P. *The Master Builders. Le Corbusier/Mies Van Der Rohe/Frank Lloyd Wright*. 1996. New York. W. W. Norton and Company.
- Bullock, N. and Read, J. *The Movement for Housing Reform in Germany and France 1840-1914*. 1985. Cambridge, MA. Cambridge University Press.
- Burkert, W. *Greek Religion. Archaic and Classical*. Translated by Raffan, J. 1985. Cambridge, MA. Harvard University Press.
- Carter, J. C. Agricultural Settlements. In Pugliese Carratelli, G. Ed. *The Western Greeks. Classical Civilization in the Western Mediterranean*. 1996. London. Thames and Hudson, Ltd. 361-368.
- Castagnoli, F. *Ippodamo di Mileto (e l'urbanistica a pianta ortogonale)*. 1956. Rome. De Luca Publishers.
- Conant, C. and Thomas, C. G. *Citadel to City-State. The Transformation of Greece, 1200-700 B.C.E*. 1999. Bloomington. Indiana University Press.
- Czestochowski, J. S. *The American Landscape Tradition. A Study and Gallery of Paintings*. 1982. New York. E. P. Dutton, Inc.
- De Polignac, F. *Cults, Territory, and the Origins of the Greek City-State*. Translated by Lloyd, J. 1995. Chicago. University of Chicago Press.
- Dinsmoor, W. B. *The Architecture of Ancient Greece. An Account of its Historic Development*. Third Edition Revised. 1975. New York. W. W. Norton and Company.
- Di Vita A. Urban Planning in Ancient Sicily. In Pugliese Carratelli, G. Ed. *The Western Greeks. Classical Civilization in the Western Mediterranean*. 1996. London. Thames and Hudson, Ltd. 263-308.
- Emerson, R. W. Nature. In Poirier, R. and Vance. W. L. Eds. *American Literature* Vol. 1. 1970. Boston. Little, Brown and Company. 439-469.
- Fein, A. *Frederick Law Olmsted and the American Environmental Tradition*. 1972. New York. George Braziller.
- Giedion, S. *Space, Time and Architecture. The Growth of a New Tradition*. Fifth Edition. 2008. Cambridge, MA. Harvard University Press.
- Gruben, G. *Griechische Tempel und Heiligtümer*. 2001. Munich. Hirmer Verlag.
- Grupico T. *The Influence of Urban Planning on Temple Design in West Greece*. Ph.D. diss.2008. New Brunswick: Rutgers, the State University of New Jersey.
- Guthrie, W. K. C. *The Greek Philosophers from Thales to Aristotle*. 1950. New York. Philosophical Library.
- Hoffmann, D. *Frank Lloyd Wright. Architecture and Nature*. 1986. New York. Dover Publications, Inc.
- Hoffmann, D. *Frank Lloyd Wright's Robie House. The Illustrated Story of an Architectural Masterpiece*. 1984. New York. Dover Publications, Inc.
- Homer, *The Odyssey*. In Lawall, S. and Mack, M. *The Norton Anthology of World Masterpieces*. Vol. 1. Seventh Edition. 1999. New York. W. W. Norton and Company. 209-514.
- Hurwit, J. M. *The Art and Culture of Early Greece, 1100-480 B.C*. 1989. Ithaca. Cornell University Press.
- Hurwit, J. M. *The Acropolis in the Age of Pericles*. 2004. New York. Cambridge University Press.
- Ito, J. *Theory and Practice of Site Planning in Classical Sanctuaries*. 2002. Kumamoto. Kyushu University Press.
- Kaufmann, E. Jr. *Fallingwater. A Frank Lloyd Wright Country House*. 1986. New York. Abbeville Press Publishers.
- Kelvin, N. Ed. *William Morris on Art and Socialism*. 1999. Mineola, New York.
- Lawall, S. and Mack, M. *The Norton Anthology of World Masterpieces*. Vol. 1. Seventh Edition. 1999. New York. W. W. Norton and Company.
- Levine, N. Frank Lloyd Wright's Own Houses and His Changing Concept of Representation. In Bolon, C. R., Nelson, R. S., and Seidel, L. Eds. *The Nature of Frank Lloyd Wright*. 1988. Chicago. The University of Chicago Press. 20-69.
- Mertens, D. and Greco, E. Urban Planning in Magna Graecia. In Pugliese Carratelli, G. Ed. *The Western Greeks. Classical Civilization in the Western Mediterranean*. 1996. London. Thames and Hudson, Ltd. 243-262.
- Morris, W. The Art of the People. In Kelvin, N. Ed. *William Morris on Art and Socialism*. Reprint. 1999. Mineola, New York. 19-34.
- Morris, W. Useful Work versus Useless Toil. In Kelvin, N. Ed. *William Morris on Art and Socialism*. Reprint. 1999. Mineola, New York. 128-143.
- Murray, O. *Early Greece*. Second Edition. 1993. Cambridge, Mass. Harvard University Press.
- Novak, B. *Nature and Culture. American Landscape and Painting 1825-1875*. 1980. New York. Oxford University Press.
- O'Gorman, J. E.. *Three American Architects. Richardson, Sullivan, and Wright, 1865-1915*.

1991. Chicago. The University of Chicago Press.
- Owens, E. J. *The City in the Greek and Roman World*. 1991. New York. Routledge.
- Pevsner, N. *Pioneers of Modern Design. From William Morris to Walter Gropius*. Fourth Edition. Revised and Expanded. 2005. New Haven. Yale University Press.
- Rhodes, P. J. *The Greek City-States. A Source Book*. 1986. Norman and London. University of Oklahoma Press.
- Roque, O. R. The Exaltation of American Landscape Painting. In *American Paradise. The World of the Hudson River School*. 1988. New York. The Metropolitan Museum of Art.
Distributed by Harry N. Abrams, Inc. 21-48.
- Shapiro, A.-L. *Housing the Poor of Paris, 1850-1902*. 1985. Madison. The University of Wisconsin Press.
- Simmel, G. The Metropolis and Mental Life. In Sennett, R. Ed. *Classic Essays on the Culture of Cities*. Reprint. 1969. New York. Appleton-Century-Crofts. 47-60.
- Snodgrass, A. M. *Archaic Greece. The Age of Experiment*. 1980. Berkeley. University of California Press.
- Stewart, A. *Art, Desire, and the Body in Ancient Greece*. 1997. New York. Cambridge University Press.
- Stickley, G. *Gustav Stickley's Craftsman Homes and Bungalows*. 2009. New York. Skyhorse Publishing, Inc.
- Stickley, G. Simplicity and Domestic Life. In Mumford, L. Ed. *Roots of Contemporary American Architecture. 37 Essays from the Mid-Nineteenth Century to the Present*. 1972. New York. Dover Publications, Inc. 299-305.
- Todd, P. *The Arts and Crafts Companion*. 2004. New York. Bulfinch Press.
- Van Zanten, D. Schooling the Prairie School. Wright's Early Style As a Communicable System. In Bolon, C. R., Nelson, R. S., and Seidel, L. Eds. *The Nature of Frank Lloyd Wright*. 1988. Chicago. The University of Chicago Press. 70-84.
- Vitruvius. *Ten Books on Architecture*. Translation by Rowland, I. D. Commentary and Illustrations by Howe, T. N. 2006. New York. Cambridge University Press.
- Wright, F. L. *An Autobiography*. 1943. New York. Duell, Sloan and Pearce.
- Wright, F. L. "Nature as Architect." In Mumford, L. Ed. *Roots of Contemporary American Architecture. 37 Essays from the Mid-Nineteenth Century to the Present*. 1972. New York. Dover Publications, Inc. 132-140.

Published by the Forum on Public Policy

Copyright © The Forum on Public Policy. All Rights Reserved. 2011.