RESEARCH EXAMINING THE EFFECTS OF LIVING AND WORKING IN MAHARISHI VASTU[®] BUILDINGS

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The effects of the built environment on human health have been the subject of extensive research in recent years. Examining health-related insights from the world's most ancient system of architecture provide a leap forward in understanding how buildings affect our health.

The ancient Vedic texts of *Manasara* and *Mayamata* propose in detail how influences may be designed into a building to improve the quality of peoples' lives. And, the texts delineate the damaging influences of improper building design and construction which it proposes will promote anger, fear, chronic disease, and other undesirable qualities.

Most research on the effect of buildings on human health is being conducted in a scatter-shot way, in that researchers are selecting subjects of study absent an overarching hypothesis regarding the mechanisms by which buildings affect human health. Maharishi Vastu provides such a hypothesis, and so it is providing a basis for deriving many novel experimental models suitable for testing.

Maharishi Mahesh Yogi¹ describes Maharishi Vastu² as "A complete system of architecture and planning according to the solar, lunar, and planetary influences on the earth with reference to North and South Poles and the equator..." And, that such a system connects individual intelligence with cosmic intelligence. In other words, an ideal system of architecture will take into account the effects of the Earth, the sun, and solar system upon life within a building or city.

How is this done?

The system of Maharishi Vastu architecture is derived in part from the most primal characteristics of the Earth: that it is a sphere that rotates from west to east about an axis that passes through the North and South Poles. As a consequence the sun and virtually all other celestial objects rotate overhead from east to west. One can therefore deduce that the influences of the celestial objects come at us from the east. From this deduction are derived four key elements of Maharishi Vastu architecture and planning:

1. *Human Orientation:* For primary activities it is ideal to align the human body with the influences of the sun, etc. by facing east. Other orientations will have other, inferior, influences. The specific effects on health are delineated in the ancient texts of the Vedic literature and may therefore be tested.

¹ Maharishi Mahesh Yogi (1918?-2008) an Indian sage best known for introducing Transcendental Meditation (TM) to the West. He also popularized in the West several other ancient Vedic technologies. In the case of Vedic

² Vastu is the application of the Vedic subject sthapatya veda, which is translated literally as "the knowledge of establishment," and translated poetically as "the architecture of nature." When the principles of sthapatya veda is applied to the design of buildings and cities the result is traditionally known as vastu.

- 2. Building Orientation: The buildings we occupy are intermediaries between us and the cosmos. The system proposes therefore that the orientation of buildings also affect our wellbeing. The effects of the four cardinal directions and the four intermediary directions are described in the Vedic literature and may therefore be tested. Of the individual influences buildings have on us, Maharishi describes building orientation as the most important.
- 3. Room Placement: The sun is the most powerful influence of nature upon life on earth. Simple observation, and a body of published research, yield the basic conclusion that the sun generates differing qualities of energy at different times of the day. Maharishi proposes that houses "should be so designed that the different energies of the sun correspond to the specific function and activity for each room." By doing so Natural Law will support every aspect of life in a home. Recommendations for ideal locations for key functions in a home are listed by Maharishi. These recommendations may be tested.
- 4. *East Light:* The Vedic tradition proposes that there is an especially health-benefitting effect from exposure to the east around the time of sunrise. In Maharishi Vastu this proposal is used by providing plenty of windows on the east side of a house, so that the contents are exposed to this effect as much as is feasible. This recommendation may be tested.
- 5. Site Influences: The Vedics texts on Vastu propose that the nourishing effects of the sun can be magnified or diminished by features in the site surrounding a dwelling. For example, a hill to the east will block the positive influence from the east around sunrise and therefore should be avoided. A water body to the east will magnify the positive influence of the morning sun and is therefore beneficial.
- 6. *Holistic System:* There are many secondary influences delineated in the Vedic literature, too numerous to recount in this overview. However, Maharishi proposes that Maharishi Vastu is a holistic system and for full benefits nothing should be left out. Therefore, in addition to testing isolated hypotheses from the Vedic literature, the effects of dwelling in an authentic Maharishi Vastu home should also be examined. It is predicted that greater results will derive from the influence of the whole than from individual elements of it.

The literature of Maharishi Vastu proposes that managing these elements correctly in the design and siting of a building will promote influences of good health, happiness, family harmony, success, and growth to enlightenment. The research done to date supports the reality of these effects.

1. Human Orientation

Maharishi Vastu theory states that our health is affected by the direction in which our body lies, i.e., our orientation, while sleeping. It predicts that it is healthiest for us to sleep with our heads pointed to the east and most unhealthy to sleep with our heads to the north.

This hypothesis has been examined by Veronica Butler, M.D., a rural Iowa physician, who discovered in a survey of her patients that those who sleep in north-facing beds score worse on a mental health survey than do those who sleep in beds with different orientations.

She reported that planned statistical comparisons with directions of sleep as the grouping variable revealed that those individuals sleeping with their heads pointing north had significantly lower scores on a mental health inventory compared to patients who slept in other directions (p=0.003, which is highly statistically significant).

Thus, there is preliminary but concrete evidence in support of the Maharishi Vastu recommendation of sleep orientation's effect on health.³

To understand why this finding occurs it would be useful to learn whether brain functioning differs in consistent ways when a subject's head is oriented in different specific directions. Extremely encouraging research is now underway in human subjects examining how prefrontal cortex activity may track with head orientation. Complete, published research has also demonstrated that neurons of the brain's pre-subiculum are orientation sensitive in some higher primates.⁴

In 2014 a Nobel Prize was awarded for the discovery of what is described as an "inner GPS" in the brain consisting of "place cells" that form a map of a place, ⁵ and "grid cells" that generate a coordinate system and allow for precise positioning and pathfinding. ⁶

2. Building Orientation

The ancient texts of Vastu predict that not only our own body's orientation, but also the orientation of the buildings we occupy, will affect us in detectable, well-delineated ways. Maharishi Vastu theory predicts that the widest range of auspicious influences benefit those who live in east-facing houses, and the broadest, most life-damaging influences come to bear on those in south-facing houses.

Mental Health & Prosperity: The first such test was carried out as a component of Dr. Butler's research cited above. As a part of her survey of patients Butler uncovered that there was a strong relationship between house orientation and scores in the areas of prosperity and mental health among her patients. Patients whose most faced south scored significantly lower in these areas.⁷

Cardiovascular Health: Another finding comes from the review of data from a cardiologist practicing in Orange County, California. He found that 50% of his patients lived in south-

³ Travis, F., Bonshek, A., Butler, V., Rainforth, M., Alexander, C.N., Khare, R., Lipman, J. "Can a Building's Orientation Affect the Quality of Life of the People Within? Testing Principles of Maharishi Sthāpatya Veda," Journal of Social Behavior and Personality. October, 2004. Butler's study's subjects did not live in Maharishi Sthapatya Veda-designed houses and were generally unacquainted with Maharishi Sthapatya Veda design. Approximately 100 subjects were included in the study.

⁴ Robert G. Robertson, P Georges-Francois, Edmund T Rolls, Stefano Panzeri:" Head Direction Cells in the Primate Pre-Subiculum." <u>Hippocampus</u>, January, 1999 9(3): 206-19.

⁵ J. O'Keefe, J. Dostrovsky "The hippocampus as a spatial map. Preliminary evidence from unit activity in the freely-moving rat" Brain Research. 12 November, 1971, https://doi.org/10.1016/0006-8993(71)90358-1

⁶ Hafting, T., Fyhn, M., Molden, S., Moser, M.-B., and Moser, E.I. (2005). "Microstructure of a spatial map in the entorhinal cortex". *Nature*, 436, 801–806

⁷ Prev. cit.: Travis, F., Butler, V., Rainforth, M., Alexander, C.N., Khare, R., Lipman, J.

facing houses. This disproportionately high percentage correlates with the Vastu understanding that residents in south-facing buildings come under an influence of all problems and suffering.⁸

Crime: A third finding comes from a study that examined the correlation of negative behavior with house orientation. The research established that there were 75% more burglaries in southfacing houses than in houses facing east, west, or north.

3: Room Placement

We are aware of no research that has been done on this subject yet. We encourage it to be done.

4. East Light

We have identified three published studies that compare health markers for subjects exposed to east or morning light vs. west or afternoon light. Each concludes that the better human health outcome is associated with east or morning light:

- A) Hospital Recovery Rates from Bipolar Disorder: In a peer-reviewed, published study, the recovery rates of patients housed in a wing of a hospital were compared where half of the patients were located in bedrooms on the east side of a corridor, receiving eastern sunlight into their rooms, and the other half were housed in rooms on the west side of the same corridor, receiving only western sunlight into their rooms. ¹⁰ In all other respects the patients had the same treatments, administered by the same doctors and nurses. It was found that bipolar-disorder patients whose rooms were on the east side of the corridor were released from treatment on average 3.7 days earlier than the bipolar-disorder patients in rooms on the west side of the corridor. This was roughly a 15% reduction.
- B) Morning Sunlight Contributes to a Lower Body Mass Index (BMI): Individuals who have been exposed to light primarily in the morning have a significantly lower [i.e., healthier] body mass index than do those who have been exposed to light primarily in the afternoon ¹¹

⁸ John Zamarra, M.D., verbal description of preliminary review conducted by on 100 of his recent patients, 2004. Orientation of house was based on street address. Addresses were categorized into one of four cardinal directions.

⁹ *Prev. cit.*: Travis, F., Bonshek, A., Butler, V., Rainforth, M., Alexander, C.N., Khare, R., Lipman, J., Study conducted on 110 burglaries reported in Fairfield, Iowa. A preliminary, unpublished study in 2000 by student Jar-El Cohen at the Maharishi School of the Age of Enlightenment, Fairfield, Iowa conducted on burglaries reported in Ottumwa, Iowa yielded similar results.

¹⁰ Benedetti, F., "Morning Sunlight Reduces Length of Hospitalization in Bipolar Depression" <u>Journal of Affective Disorders</u> 62 (2001) pp. 221-223. Note: other patients in the ward who suffered from another condition had no difference in the duration of treatment.

¹¹ Timing and Intensity of Light Correlate with Body Weight in Adults. Kathryn J. Reid, Giovanni Santostasi, Kelly G. Baron, John Wilson, Joseph Kang, Phyllis C. Zee. PLOS, Published: April 2, 2014. Note: The influence of morning light exposure on body weight was independent of an individual's physical activity level, caloric intake, sleep timing, age or season.

The Northwestern University's study's co-lead author said, "The earlier this light exposure occurred during the day, the lower individuals' body mass index....The later the hour of moderately bright light exposure, the higher a person's BMI....If a person doesn't get sufficient light at the appropriate time of day, it could de-synchronize your internal body clock, which is known to alter metabolism and can lead to weight gain." The study's senior author Phyllis C. Zee, M.D. said, "The message is that you should get more bright light between 8 a.m. and noon."

C) Favor Exposure to Morning Sunlight to Reduce the Risk of Skin Cancer: A study by a Nobel Laureate in the *Proceedings of the National Academy Sciences of the United States of Anmerica* of found that the time of day of exposure to UV radiation is a contributing factor to skin cancer development in mice.¹² The paper predicts that humans are less likely to develop skin cancer if exposed to UV radiation in the morning. The authors have gone so far as stating that "it might be advisable for humans, to the extent possible, to restrict their...UV radiation exposure to the morning hours."

5. Site Influences

We are aware of no research that has been done yet on this as an isolated subject.

6. Holistic System

Maharishi Vastu architecture is a holistic science. When multiple predictors are present the effects are anticipated to be stronger. A preliminary study examined this prediction. ¹³ In this study 30 publicly-owned businesses were selected randomly in the Faroe Islands, a territory of Denmark. Five years of financial records for each company were compiled from public records, as were aerial photos, topographic maps, and site plans of their headquarters. Companies were excluded from the study if their income was not generated within their headquarters – fishing and shipping companies, for example, were therefore excluded.

A Maharishi Vastu consultant evaluated the collected drawings and photos of each building and concluded that there were five Maharishi Vastu factors that can be observed in the documentation on each company:

- Building orientation
- Building shape
- Direction of nearest mountain
- Direction of nearest water body
- Orientation of fenced enclosure around the building, where present

¹² Control of Skin Cancer by the Circadian Rhythm. Shobhan Gaddameedhi, Christopher P. Selby, William K. Kaufmann, Robert C. Smart, and Aziz Sancar. PNAS November 15, 2011 108 (46) 18790-18795; https://doi.org/10.1073/pnas.1115249108

¹³ Olavur Christiansen, Ph. D., University of the Faroe Islands, Denmark, and Maharishi Vastu consultant Carmen Quinton. This report is based upon an oral presentation made by Christiansen in August of 2001 to the faculty of the business school at Maharishi University of Management, Fairfield, Iowa.

The consultant graded each company according to the predicted influence of each of the five factors and compiled a single numerical predictor for their overall influence, and ranked the companies on the basis of this predictor. Independently, the study's lead researcher, a professor of business and statistics, ranked the financial success of the companies on the basis of the amount of profit generated per employee over the five year period and other standard financial statistics.

In 27 out of the 30 companies the researchers report that the Vastu architecture indices correlated with the amount of profit generated per employee by the companies. 27 out of 30 is a remarkably high correlation.

One study has been performed and published to date to measure how Maharishi Vastu affects its occupants¹⁴. In this study, which was published in Creativity Research Journal, a company's employees were tested for creativity using the Torrance Test of Creative Thinking before and after moving into a Maharishi Vastu office building. Data showed significant improvement in the originality and depth of their creative output.

Finally, what is the subjective experience of the occupants of Maharishi Vastu homes, and how do these experiences line up with the proposed influences of good health, happiness, family harmony, success, and growth to enlightenment?

Initial research suggests that Maharishi Vastu architecture has powerful and profoundly nourishing effects upon its occupants. Four studies are now underway, and this summary will be revised to include them as they are published. Much more research must be done.

¹⁴ Anil K. Maheshwari, A. K., & Werd, M. R. P. "Architecture and Creativity: Examining the Impact of Maharishi Vastu on Workplace Creativity," Creativity Research Journal, 23 Sep 2019.