

Walden 3d

by

Henry William James

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BACK COVER: *Walden 3d* is a biographical novel, or what might be called historical fiction. The book describes an experiment in urban self-sufficiency undertaken in the last decade of the twentieth century. Written in 1990 the initial edition was a proposal defining the potential impact of intelligent information on the urban backdrop. The story is organized around the conception, design, building and initial habitation of a prototype 21st century community. Located within reasonable commuting distance of a major town in Texas, Walden 3d started as an artist colony for retired geoscientist. Population reached 3,454 (about 3% of total planned occupancy) by the year 2001. After 10 years, at the decadennial, several sister towns have been conceptualized, and the first has broken ground. These new intelligent cities are being tied together using the information network. The decadennial celebration provided the motivation for the author to "talk" through the historical beginnings of the project, quoting heavily from the minutes of the organizing group, as well as from some of his favorite philosophical and scientific readings.

The pseudonym Henry William James provides a sense of authenticity to those who simply wish to read a story. Henry William James, born in Mesquite, Nevada in November of 1917, was named after the famous American brothers Henry James and William James, respectively the writer and the philosopher. He graduated with a masters degree in Geology from Colorado School of Mines in June of 1941. Temporary separation from his wife Elizabeth Jane and their first son Tom occurred when he joined the navy to participate in World War II. Returning to work for Gulf Oil, with Liz, their new son Ronnie and young Tommy, Henry was assigned to work in Caracas, Venezuela. Major career stops included: Tripoli, Libya; Port Harcourt, Nigeria; London, England; Hammerville, Pennsylvania; and finally, after years of attempting to avoid it, Houston, Texas. These transfers provided Henry and his family, now with a daughter, Virginia June, and third son, Jon, the opportunity to see and experience many of the cultures on earth. At age 72 Henry found himself somewhat bored with consulting. He and "Beth" had spent the last 10 years working with a class of inner city school kids, and he was very frustrated with the lack of results from this effort. Although he had not realized it, he was looking for major change in his life, a way to use his knowledge of the earth and its inhabitants to help humanity. This book is Henry's description of his part in the founding Walden 3d, the first three-dimensional intelligent city.

Henry got a glimpse of what he would like to do on Earth Day, April 21, 1991 and this culminated in a program developed over dinner a few weeks later on May 10th at the Texas Geoscience Society's annual Honors and Awards Banquet. A plan was outlined on a paper napkin to use the information handling technologies that had been developed for oil and gas exploration and production to design, simulate, sell, and build a prototype 21st century community, ergo: a man-made topology derived from natural boundaries by using all available housing information; a city built from components fabricated automatically from the finalized design; a multi-generational project simulated through time and iteratively modified by prospective inhabitants; a city built within a multi-level three-dimensional skeletal framework organizing the pattern and anchorage for private, commercial and public institutions; a community minimizing distances and therefore allowing citizens to maximize time employment; a city with large and small subspaces at the urban and facility scale; an urban environment optimizing energy and material consumption; a city based on ecological architecture, growing like a flower rather than a weed by taking fluids and minerals from the earth and returning wastes for recycling; a metropolis making its own weather and cityscape; a city designed around people instead of automobiles; a suburb with places and inlets for people, freight, water, power, climate, mail, electronic information and raw materials; a city with places and outlets for people, freight, waste, mail, electronic information and products; a town providing

massive flow of people and things within, towards and outside city boundaries; a city surrounded by uncluttered and open landscape owned by the community and 20 times the acreage the city framework is built on; an energy efficient, experimental city named *Walden 3d*.

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Preface

06 April 2001, Walden 3d, Texas. Today we experienced a compuvision review of the growing impact Earth Day has had over the last 30 years. Looking back, it seems impossible to comprehend all that has happened in this period of time. It seems so long, but has actually been so short. The changes have been dramatic. Both alterations in my own life, as well as in the world in general. I will not try to chronicle mankind's milestones and millstones. That, after all, is the historians charge. But when it comes to historical renderings of the events I have been involve in, I choose not to trust anyone else's viewpoint. No one seems to know my history nor the reasons for my choices. At times of reflection, like this, it becomes clear that even my parents did not seem to understand.

It seemed Father and Mother were from a completely different generation. But maybe, as I comtemplate the changes which have occured, mine is the different generation. Improvements have approached, if not exceeded, the imagination of the most insightful science fiction writers. Think of how many of the early science fiction writers dream's, like Jules Verne, are now reality: nuclear powered submarines travelling under the North Pole; airplane flight; television; guided missiles; and space satellites.¹ Then top this off with all of the medical advances and transplants of today. We seem to be at the verge of immortality.

But even as the elderly see their lives extended by modern medical miracles, they still must know themselves.² One would hope that when all of the chips are cashed in, we know ourselves better than anyone else knows us. We must understand what motivates us, what creates our fears, how we can be happy, and why we make the choices we do. Of course, the majority of people just live their lives day to day and do not bother to ask these searching questions. Hopefully, by sharing a little of what is bottled up inside of me, my family and friends will bother to ask. Maybe we will even make a new friend.

It seems reasonable to appear to be giving in to the desires of our family by talking through a few words about my participation in the information revolution of the 1990's. Notice the word appear. In reality, this document is being prepared for presentation this coming August at the 100th monthly meeting of participants in the information experiment known as Walden 3d. Even with new technologies, like this computer that writes out what I say to it, automatically correcting spelling and grammer mistakes, it will probably take a few months to organize all of the notes that have been collected over the last decade into a readable presentation. It is gratifying this effort for the meeting will fit the family's request for a personal history of my involvement in the project. The results might even possibly satisfy our eldest son, Tom. It would be nice for him to accept what has happened without attempting to find psychological overprints. Sometimes it seems as though he is treating the last few years like a murder mystery that is still being played out. Hopefully when he reads the story, he will accept it for what it is: a summary of how we used new information technologies to change society's view of the urban environment and built form.

This book is an autobiographical review of my participation in the monthly meetings of The Port Harcourt Club. A group of us that had worked together in Port Harcourt, Nigeria started meeting about the time my family finally transferred to Houston, the summer of 1983. Our first meetings were mostly social and were certainly only semi-regular for the first seven or eight years. In reflection, it is

interesting that the kernel justifying our club often came back to activities I had been involved with in Harmarville, Pennsylvania and the presentation John T. Galley made to our group in the fall of 1983.

I had first heard John T. talk about the importance of geology in the proper planning and development of cities to the Geoscience Society of Pittsburg (GSP), when we first moved to Harmarville in November of 1965. That talk, combined with my background became the basis of my excitement about building a prototype 21st century community. Looking back it is easy to see the importance of the timing of our arrival in Harmarville to what has happened since.

As had happened several times during my career at Gulf, senior management attempted to transfer me to Houston. I was determined not to move to the polluted, murder capital of the U.S. To make a long story short, I accepted a lateral transfer to Gulf Research rather than move the family to Houston. Three things happened the same week we moved back to the states: (1) Walt Disney announced his plans for building an Experimental Prototype Community of Tomorrow (EPCOT) near Orlando, Florida on November 15th; (2) the next evening I met John T. Galey, after listening to his presentation at the GPS meeting about proper planning and development of cities; and (3) that weekend at my birthday party our son Jon gave me to a book called Walden 2, about building/programming a better society through positive reinforcement.

As expats, our family always used vacations to see America. A few years before we moved back to the states Mother and Father had moved from Liz and my hometown of Mesquite, Nevada to the new town of Page, Arizona. Of course, we always visited them when on leave, and so had watched the building of a new city in the desert. However, frankly speaking, Disneyland was our family's favorite place in the entire world. Not because it provides an escape from reality, but because everyone is happy there. It is the same kind of happiness I had found among one particular community of native Nigerians living by the beach near Port Harcourt. True the kids got tired and cranky sometimes, but there was the fascination of seeing something new and unexpected around every corner. Comparable to the wonder associated with finding what the tide would wash ashore next in the primitive world. Walt Disney's vision of a city built with this type of atmosphere sent my imagination soaring beyond the stratosphere.

The evening after the Disney announcement, when John T. presented his thoughts about how geology is the foundation of our civilization, everything seemed to click in my mind. One would think that living overseas would increase self-confidence, but it was very hard to go up and talk to him after that presentation. Insecurity is as powerful a force as gravity. Anyway, I did, and over the next few years we became good friends. In fact, in 1971, when he organized, chaired, and secured National Science Foundation funding for the President's Conference on Environmental Geology held at Airle House, Virginia³ he asked me to participate. With a group of distinguished geologists, engineers, architects, and planners, we developed a comprehensive plan for the theoretical development of a hypothetical new concept town. It was programmed to grow from scratch into a city with a population of 300,000 over a 10-year period in a planned, environmentally responsible manner.⁴ At the conclusion of the planning session we named the hypothetical new concept town "Galeyville."

This was not to be confused with the actual town of Galeyville (now a ghost town)

that grew up near the site of an 1880's silver mining venture of John T.'s Grandfather's eldest brother, John H. Galey. In fact, that historical tie to the west became part of the basis for our friendship. It turned out that, Edward Bunker, Sr., who had started the town of Bunkerville in 1877, wrote in his journal about John H. visiting Nevada and luring away some of the unsure in search of gold and silver. One of those who left the community was my progenitor, William James.⁵ When William left with John H. they traveled north to Santa Clara, across Southern Utah to Kanab, south to the North Rim of the Grand Canyon, northeast to Lee's Ferry to cross the Colorado River, and then they made their way to the southeast corner of Arizona. Here William helped John H. open the Texas Mine and Smelter in Cochise County, Arizona, on the eastern slope of the Chiricahuas in 1881.⁶ William was in awe of John H.

John H. was reputed to have found more oil than anyone from the time he drilled the famous Maple Shade gusher near Pleasantville, Venango County, Pennsylvania in 1860, the same year William was born, to the time of the greatest gusher the world had yet known, near Beaumont, Texas, at Spindletop in 1901.⁷ As the mine prospered, William became fascinated with geology.⁸ Ore was hauled by wagon to Tombstone, 60 miles to the west. However, John H. accused William of mismanaging the trust and responsibility he had given him. He accused William of being responsible for losing the fortune he had made in oil. In 1883 John H. left to return to Pennsylvania to recoup⁹ and, unknown at the time, to become involved in urban planning. John H. knew he would be successful.

In 1876 John H. had become convinced of the anticlinal nature of oil belts. Upon returning to Pennsylvania in 1883 he found that brine wells drilled near Tarentum on the Allegheny River, a short distance north of Pittsburgh, showed oil. The Pennsylvania Survey geological report indicated an anticlinal axis a few miles north of the river and a major coal vein outcrop along a creek that crossed its axis. Structural contouring was not then being done. John H. rode his horse around the coal outcrop, compared its elevation with that of the creek, found and drilled a high on a Wehrle farm and got a fine gas well. He soon found a higher elevation and made a second well location on a Bandy farm. The flow was so enormous it blew down the rig, and according to reports, was the largest gas well ever found. This discovery emphatically confirmed Hans von Hofer's views on the anticlinal theory in September 1884.¹⁰

A few years before, in 1878 while John H. was out west, a large gas well, Haymaker 1 Remaley had been drilled at Murrysville. This well was 18 miles east of Pittsburgh and about 11 miles southeast of Tarentum. The well caught fire and lit the night sky like day for a year and a half before it was extinguished. George Westinghouse, the electrical genius, became possessed by the idea that such low-cost natural gas would make Pittsburgh the greatest industrial city in the nation and conceived of a grand plan to furnish gas to the city and its mills. Thus began the natural gas industry and a new era of civilization. The enterprise was being executed with the highest degree of professional skill when John H.'s enormous gas well, the Bandy at Tarentum, was flowing wild and Westinghouse's well on his own estate in Pittsburgh had failed. John H. invited Westinghouse to see and hear his big new well at Tarentum, telling him it would make more gas in a few minutes than Westinghouse's well would in several years. Westinghouse was so impressed he promptly bought it for \$100,000.¹¹ The impact on Pittsburgh and in effect on the development of the modern city is legend.

In 1983, after Gulf was purchased by Chevron, and we moved to Houston to help insure a smooth transition, a group of us that had worked together in Nigeria formed the Port Harcourt Club. After listening to the founding members discuss their interests and goals for the club, it seemed that John T.'s stories and his report on Galeville would be of keen interest to them. Shortly after we moved Houston John T. called to say he was going to be in Houston on business and wanted to stop by and say hello. It was only natural to invite him to be the first guest speaker of the Port Harcourt Club. As stated earlier, this presentation set the stage for the topics pursued over the next few years by the Port Harcourt Club.

By the fall of 1991 we had a fairly good understanding of the theoretical basis for urban planning. In November of 1991, we had a presentation titled "The Intelligent Habitat Project." We had invited several new prospective members of the Port Harcourt Club to this meeting. Everyone who attended was provided a copy of this book, and challenged to write out what we were actually doing to make the world a better place. As I will describe, the meeting changed my life, and the monthly meetings of the Port Harcourt Club. Our group became the forum for naming, designing, developing and implementing Walden 3d, the first 3d intelligent city. The project was started as an experiment to see if a group of oil company professionals could impact the world by prototyping a new type of urban environment. This 21st century city, the first major building project in Texas after the 1990-1994 recession, was designed around people instead of around automobiles. The city is three-dimensional, with vertical access to several horizontal levels. In more ways than you would expect the concept is tied together by imagination. Although the new technologies of the late twentieth century were necessary to initiate Walden 3d, the philosophical basis can be traced to antiquity.

In the words of the preacher, "There is no new thing under the sun."¹² Guess this is my justification for starting on this manuscript that will extensively quote from the thoughts and works of others. Realistically this writing is civilized plagerism. There are two saving graces: (1) I will do my best to footnote other people's words; and (2) any profits that come from this book go back into the project and are not for personal gain. We have sufficient for our needs. Others are extensively quoted because, after all, history is full of those who were greater thinkers than any of us involved in the project. There is the fact that this project was undertaken by a cooperative team. This resulted in a collective consciousness that was greater than any one individual involved. We think it is even possible we approached the abilities of Thomas Jefferson and some of the other great historical reformers. Although I am not real, the story can still provide a surrogate for each reader with a real and sincere intent to help establish a positive change, a millennial change¹³, in our earth's net energy usage. We have demonstrated enough improvements during the decade of the 1990's to reasonably project a positive energy balance sheet for the earth by the beginning of the 22nd century. Mankind would need to blow the earth up in order to again reverse the worldwide trends pointing towards a sustainable environment. There is no reason, need or justification for destroying our resources and the earth, ergo causing world bankruptcy.

Nature is but a single system
Where a change in any solitary part
Effect the operation of the whole
Modifying the environment of true art¹⁴

In most books, the I, or first person, is omitted. Surely you have already noticed

that in this document it has been retained. The main difference is in respect to egotism. We commonly do not remember that it is, after all, always the first person that is speaking. I should not talk so much about myself if there were anybody else whom I knew as well.¹⁵ Even my wife Liz is often an enigma to me. Furthermore, it continually has suprised me how often something would happen showing how little I really know the other participants in the project.

This book can be thought of as the thread which pulled a string (the TV program based on the book), which pulled a rope (W3d virtual reality centers), which pulled a chain (The Walden 3d Foundation), which pulled a framework (the initial Walden 3d), which pulled a worldwide social paradigm shift. It is scary to think about how fragile the original idea was that got hold of the thread. The idea was planted in several people's minds. Although I have been accused of being an athiestic geologist, it has been the most fulfilling part of my life to be a conduit for things outside of myself. For example: to watch my children grow; to see an idea become firmly rooted in the soil of humanity; and to be involved in making the Earth a better place to live.

Summary of Section:

- Introduction**
- Detailed description of verbal word processing (VWP)**
- Summary of the storyline**
- Characteristics of characters and conflicts**
- Information Anxiety**
- Henry impressed with the use of information**
- Symbiosis or interaction in the environment**
- What is happening today: Koyaanisqatsi**
- Cycles or seasons**

All novels are a lie. Though it may be argued they are but an alternate view of reality. Some might even be called a proposal for improving the lot of humanity. This is only a lie if society does not function.

Fiction is obliged to stick to possibilities. Truth isn't. (Mark Twain)

Ethics: The study of fundamental principles in right and wrong.

Include section in preface about intelligence and the red rubber ball.

When we watch a ball roll down a slope, we notice it seems to try to get around obstacles that lie in its path. If we didn't know about gravity, we might be tempted to think that the ball has the goal of moving down. But we know that the ball isn't "trying" to do anything; the impression of intention is only in the watcher's mind.¹⁶

One ingredient of having a goal is persistence. The other critical ingredient of goal is to have some image or description of a wanted or desired state.¹⁷

...one can...perfectly predict the behavior of a rolling ball by describing it as a difference-engine whose goal is to reduce its own energy. Words should be our servants, not our masters.¹⁸

The difference-engine scheme remains the most useful conception of goal, purpose, or intention yet discovered.¹⁹

It has always seemed to me that I am a pretty average guy. At 5 feet 8 inches I was a midget next to the Ibos I worked with during our stay in Nigeria. At 165 pounds I'm a little over my ideal weight, but less overweight than most of my contemporaries. With balding white hair, a round face and ruddy complexion I could be passed of as the grandfather of three-fourths of the kids born between Calgary, Alberta and Las Vegas, Nevada. In fact, I have often wondered why I was born on November 21st in 1917 instead of 100 years earlier or later. Why were my parents Benjamin Henry and Emma Thompson James instead of Adolf and Nellie Atkin Hafen? I can imagine how much fun it would have been to have been a brother to Paul Hafen, my opponent on the basketball court.

I figure most of us wonder at some time during our life what is the essential component of me. Did this essence exist before I was born and will it live after I

die. Maybe someday I'll talk through my thoughts on these topics. In the meantime we can continue to let the psychologists attempt to explain the success of Walden 3d and my contributions to that success in terms of my heredity and childhood environment.

There is no question about the fact that I have learned a lot about myself since the events transpired in 1993 to place me in jail without bond. I became quite interested in genealogy after a study was done to "determine" the impact of being the oldest son of the oldest son (Benjamin Henry; father) of the oldest son (Henry Bunker; Grandfather) of the oldest son (Bunker William James; Great-Grandfather) who founded my home town of Mesquite, Nevada as well as a neighboring community called Bunkerville.

I have often wondered what one of my name sakes, Henry Thoreau would think of what we have done to the world since he went to live at Walden Pond. To think it was only in 1989 that Don Henley of the Eagles had a rock benefit concert to keep Walden Pond from becoming a subdivision. In geological time it was just a second before this, in 1845, that Thoreau began his famous experiment in essential living. Convinced that the less labor a man did, the better for him and the community, Thoreau retired to the shore of Walden Pond where he lived for two years in a hut of his own construction.²⁰

Today life seems to be going faster and faster, or as the Hopi Indians back home say Koyaanisqatsi:

Life out of balance, disintegrating
Life in turmoil, everyone going crazy
A call for another way of living
For time to think, ponder and be lazy²¹

"I hesitate to say these things, but it is not because of the subject,--I care not how obscene my words are,--but because I cannot speak of them without betraying my impurity. We discourse freely without shame of one form of sensuality, and are silent about another."²² "I always say what I think, and I don't care whether others agree with me or not."²³ "I did not only talk of the future and the veil which was drawn over it. I also mentioned the past; all its joys, and how its light shone even in the present darkness. ...I quoted a poet...who had written, "Was Du erlebst, kann keine Macht der Welt Dir rauben." (What you have experienced, no power on earth can take from you.) Not only our experiences, but all we have done, whatever great thoughts we may have had, and all we have suffered, all this is not lost, though it is past; we have brought it into being. Having been is...a kind of being, and perhaps the surest kind."²⁴

There are no longer national problems
Between the eagle and the bear
Only world environmental challenges
Keeping forests, water and clean air²⁵

"I came into this world, not chiefly to make this a good place to live in, but to live it it, be it good or bad. A man has not *every thing* to do, but something; and because he cannot do every thing, it is not necessary that he should do *something* wrong."²⁶ "I have left abundance where there was want before. True--only by ruining myself. But a man could not ruin himself in a more decent cause."²⁷

Spring is birth and summer shows growth
Autumn harvests seeds planted yesterday
Winter takes life away, making dormant
Normal growth, as when in death we lay²⁸

...revolutionary prototypes for a total break with existing planning patterns or theories.²⁹

The sprawling, essentially flat cities and suburbs that are eating up the surface of the earth are "utopian" in the negative sense that they are absurd and unworkable,...³⁰

...each new building exposes more of a built-in flaw--the distances and travel times that separate individuals from their institutions (or from nature) do not conform to the human scale, and the obstacles between the two exceed human tolerance limits.³¹

I guess Walden 3d all started with this novel I read. A sort of proposal to the world.

I expect that some of my inner most thoughts will come out in this book. Motivation is something only known in the heart of the person who has found it.

¹Journey to the Center of the Earth, 1864; From the Earth to the Moon, 1865; Around the Moon, 1870; Twenty Thousand Leagues Under the Sea, 1870; and Around the World in Eighty Days, 1873.

²Inscription at the Delphic Oracle. from Plutarch, Morals.

³AAPG Honorees, The American Association of Petroleum Geologists Bulletin, v. 74, no. 7, July 1990, p. 1135-1164.

⁴Ibid.

⁵Reminiscences of William James, Henry William James, 1997.

⁶AAPG, 1990.

⁷Ibid.

⁸Reminiscences, 1997.

⁹Ibid.

¹⁰AAPG, 1990.

¹¹Ibid.

¹²Ecclesiastes 1:9

¹³Thriving on Chaos, Tom Peters, Video part 1.

¹⁴Prime Words, 2.III.C.2. Interaction, 1993.

¹⁵Walden, p. 7

¹⁶Minsky, Marvin; "The Society of Mind," Simon and Schuster, 1986, p. 79.

¹⁷Minsky, Marvin; "The Society of Mind," Simon and Schuster, 1986, p. 79.

¹⁸Minsky, Marvin; "The Society of Mind," Simon and Schuster, 1986, p. 79.

¹⁹Minsky, Marvin; "The Society of Mind," Simon and Schuster, 1986, p. 79.

²⁰Walden, Introduction.

²¹Prime Words, 2.IV.B.60. Koyaanisqatsi.

²²Walden, p. 150.

²³Voltaire, p. 103.

²⁴Frankl, p. 104.

²⁵Prime Words, 2.V.A.96. Environment.

²⁶On the Duty of Civil Disobedience, p. 229.

²⁷Voltaire, p. 3.

²⁸Prime Words, 2.IV.B.83. Seasons.

²⁹Soleri, Paolo, *The City in the Image of Man*, MIT Press, May, 1973, back cover.

³⁰Soleri, Paolo, *The City in the Image of Man*, MIT Press, May, 1973, back cover.

³¹Soleri, Paolo, *The City in the Image of Man*, MIT Press, May, 1973, back cover.