




Thoreau's Number

Case Study 3

Inspired by Henry David Thoreau's notes on "Architecture" in *Walden*, and his attempt to live simply at Walden Pond, we explored a measure of life time as a function of dwelling construction and ownership cost.

A measure of the time a person lives in one's home, compared to the time it takes to build it.

This is one important index of available personal time in one's life.

How long a dwelling may be lived in compared to how long it takes to produce that dwelling is a measure of habitable space in terms of human time. This proportion may indicate the value of spirit in a particular culture, since clearly it is an advantage to spend as little time as possible in erecting a shelter as there are many other things to do, especially in cultivating body, mind, spirit-- which are endless and ever-rewarding humane pursuits. These might include some defense against marauding armies, community celebrations, or speculation, wonder, and discovery. In honor of this last possibility that we choose to call the proportion Thoreau's Number, and represent it by the last letter in the Hebrew alphabet, , Taf.

$$\text{Taf} = \frac{\text{NET inhabiting}}{\text{NET constructing}}$$

when N = number of people
E = energy
T = time



for Thoreau himself:

$$= \frac{1 \text{ man (60 years lifetime)}}{1 \text{ man (3 months salary + 3 months construction)}}$$

$$\text{Thoreau} = 120$$

using Thoreau's own reckoning
that by spending only \$28.12 1/2
and 3 months of his own labor
he demonstrated how to produce
"shelter for a lifetime
at the expense of one's annual rent."

$$\text{Thoreau} = \frac{\text{NET inhabiting}}{\text{NET constructing}}$$

when N = number of people
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wage earner

A typical American wage earner might work 10 years of his or her life to pay for a mortgage on a house that might last 30 years for spouse and children.

In this case:

$$= \frac{4 \text{ people } (30 \text{ years})}{1 \text{ person } (10 \text{ years salary for mortgage})}$$

$$\text{⌂} = 12$$

$$\text{⌂} = \frac{\text{NET inhabiting}}{\text{NET constructing}}$$

when N = number of people
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Thus, for every hour Thoreau spends building his home, a wage earner spends 10 hours.

The remaining 9 hours are leisure Thoreau enjoys
That is lost to the wage earner.



But even Thoreau seems to devote far too much effort to the problem compared to the elegant solution of Congo Pygmies:

$$= \frac{2 \text{ people (up to 10 months)}}{1 \text{ person (1/2 day or 0.0167 month)}}$$

$$\text{Pygmy} = 1200!$$

In terms of dwelling, Pygmies emerge as true philosophers, for they have learned to live simply.

$$\text{Pygmy} = \frac{\text{NET inhabiting}}{\text{NET constructing}}$$

when N = number of people
E = energy
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