From the definition of thermodynamic system.

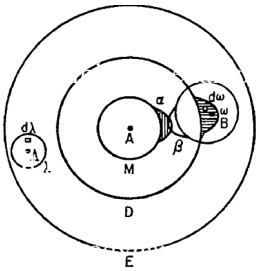
Boltzmann's I_2 molecule diagram showing atomic "sensitive region" (α, β) overlap (1898). Wikipedia.

A system with walls that prevent all transfers is said to be isolated. This is an idealzed conception, because in practice some transfer is always possible, for example by gravitational forces.

walls

all

isolated.



axiom of

It is an axiom of thermodynamics that an isolated system eventually reaches internal thermodynamic equilibrium, when its state no longer changes with time.

internal

time.

Article by J. J. O'Connor and E. F. Robertson
http://www-history.mcs.st-and.ac.uk/Biographies/Boltzmann.html

Boltzmann, at least half jokingly, used to say that the reason he moved around so much was that he was born during the dying hours of a Mardi Gras ball. It was only half joking since he did feel that his nature made him subject to rapid swings between happiness and sadness. His personality certainly had a major impact on the direction that his career took, and personal relationships, where he was always very soft-hearted, played a big part. He suffered from an alternation of depressed moods with elevated, expansive or irritable moods. Indeed his physical appearance, being short and stout with curly hair, seemed to fit his personality. His fiancée called him her "sweet fat darling".

Image of Boltzmann from Clementine, NASA.
Churchland, P. *Touching a Nerve: The Self as Brain.* NY: Knopf, 2013.

They said they would “rather err with Galen than proclaim the truth with Harvey”.
Let’s believe what we prefer to believe.

Let’s believe what we prefer to believe.
That everything below the level of the moon is corruptible, changeable, earthly, imperfect.
That is the realm of sublunar physics. Everything above the level of the moon is perfect, heavenly, unchangeing, and so forth. This is the realm of supralunar physics.

The stars

holes

in a huge sphere (made of crystal)
enclos~~ed~~ing
the universe –

Earth at the center, of course.

That being alive entails animal spirits
vivifying the body.

Where do the animal spirits come from?

They are
made in the heart.
concoct[ed]

For Ludwig Boltzmann
Poem by Jaime Robles

Let's assume that love between us
is a universe, bounded,
a walled universe, as if it were a box.

We are in the box, or at least love is.
And that love is particulate, molecular
and free-wheeling, as light as air,
or equal to an atmosphere contained.
What is the likelihood that love
would gather in one half, or more,
in one corner, of the box?

(What is the likelihood
that we would pass each other walking
the walled streets of a medieval city?)

There is an element of disorder here.
An arrow pointing to the past (or was it
the future?) and probabilities of books
open to tarnished pages.

Awareness
configures itself in the midst
of logarithmic equations. In a far corner
of an isolated box love is neither here
nor there. Here and there.

From the definition of thermodynamic system. Equation on Boltzmann's tomb, Vienna Central Cemetery.

said to be

always possible