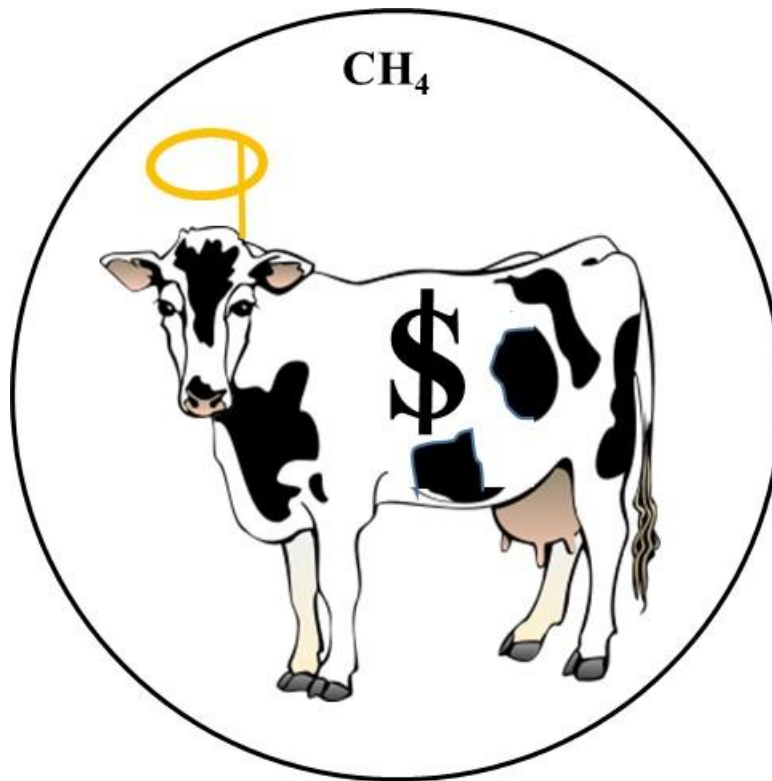


## Consider a Sacred Cow, in Equilibrium with its Farts



The Holy Grail of Global Warming was first discovered by the magician Tyndall in the nineteenth century. He found the caloric potential in CO<sub>2</sub> and realized that this magic could warm the earth. Although many magicians tried, they could not get any warming. A special kind of magic was needed. Many years passed, then the great magicians Manabe and Wetherald made the next step. They needed a very special kind of computer magic and they had to use the caloric potential of water vapor as well as CO<sub>2</sub>. To combine these two caloric potentials they had to go back to the Spells of the Great Witches of Old and insert the Invocation of Macbeth “Double Double Toil and Trouble, Fire Burn and Cauldron Bubble”. Using their magical computer model, they created an Equilibrium Land in which sun was always shining at its 24 hour average value. This land had a special magical surface that had no heat capacity. They adjusted the sun and the caloric so that they were always in a sacred balance. When the caloric from CO<sub>2</sub> was increased, the water vapor caloric followed. This was sufficient to heat the surface. Other magicians learned the technique and created their own magic computer models. They realized that any gas with caloric could be used to create this warming. They just had to use the right caloric properties. These were hidden in the spectroscopy contained in the sacred HITRAN gospels and could not be changed by computer magic. Soon a great list of caloric gases was created and the spectroscopy was used to reveal how much warming each one could provide. Then the Great Wizard Hansen appeared and created a magical super computer. He added a Great Ocean to the Equilibrium Land model. This ocean had very special properties. Unlike a real ocean, the ocean was flat with a special surface.

There was no wind, no waves and no evaporation. This magical ocean could absorb and store the caloric in layers below its special surface. Even though the caloric could only work on the magic surface, Hansen created weather stations that could measure the surface heat using thermometers at eye level where the magic could be seen.

To demonstrate his magical powers Hansen created a sacred cow that lived in the Equilibrium Land. This cow was in equilibrium with its farts. Whenever the cow farted, the caloric from the farts was added to the atmosphere. He created a great magical warming by radiatively forcing the fart mixture. He started high in the atmosphere and made the farts warm the stratosphere. Once this warming was fully created he moved the caloric downwards and created the warming in the troposphere. Then he added more computer magic and made the farts warm the ocean. The magician Keeling came to help. He added special measurement stations to measure the fart mixture. Everyone could now see that the temperature increased along with the increase in the fart concentration. New electronic thermometers in new enclosures were added to replace the old mercury in glass ones. The new thermometers gave higher readings than the old ones. To make everything match, the old temperature records were adjusted using a special homogenization magic to make the old readings match the new. The Equilibrium Land became warmer. People came to visit the computer model and started to worship the sacred cow. Some became disciples of Hansen and copied his magic. Then they started to worry that the farts from the sacred cow were causing too much warming. They consulted the Oracle and read the Divine Computer Spaghetti Plots that foretold of great warming. To compensate, they began to reduce the caloric concentration in the Equilibrium Land. Special programs were written to stop combustion and reduce caloric emissions. The sacred cow was fed a special diet to reduce its farts. The magic models showed that the sun could be used for replacement heat. Special sun traps were designed. The disciples made the worshipers of the sacred cow pay to build these traps. They had to use them to heat their houses and cook their food. However, the sun traps were not very efficient. Costs kept going up and the time allowed for heating and cooking was reduced. The worshipers were cold and hungry. There was discontent in the Equilibrium Land. But the disciples claimed the Divine Right from the Magic Code. The land was warming. The worshipers had to endure the hardships.

Then one day the Inspector arrived. He was in charge of the magicians and had to make sure that their powers were real. He looked very carefully at the Hansen computer model. He spent a lot of time reading the Magic Code that had been created. He had access to the secret error code characters that told him something was wrong. He looked at the temperature record and compared it to his own measurements. The Hansen readings were too high. Finally he realized that the Magic Directory had been corrupted. The Laws of Physics had been over written and the Second Law of Thermodynamics had been lost. The Inspector had to go back to the Great Lords of Physics and request a new copy of the Magic Directory. When the Second Law was restored it changed the magic. Convection and evaporation appeared. There were waves on the ocean surface. The hidden ocean oscillations were revealed. These changed the ocean temperature. The evaporation stopped the farts from heating the ocean. The curtain was lifted from the computer. There was no magic. The caloric had disappeared. The Second Law had restored the proper heat flow to the

surface. Hansen was not a magician, nor were his disciples. They were banished to the barn with the formerly sacred cow and her farts.

R. Clark, 8/8/19