# Hearthwarming News

A Newsletter from the Masonry Heater Store By Fountainhead Natural Homes, LLC

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## Energy Independence

Today, most homes are heated using oil or gas as the primary fuel. And electricity is consumed at the same time to operate furnace blowers or pumps. This means that every time the central furnace kicks on, the typical homeowner is depending on a tremendous infrastructure to supply coal, uranium, oil, and natural gas at continuous, constant rate.

When you think about it, it is staggering the number of people, companies, and institutions are needed to keep these fuels accessible and available at an affordable price. Imagine the linemen maintaining electric lines, truck drivers delivering tankers of fuel, road workers building or repairing streets and bridges, train engineers pulling dozens of coal cars, and on and on. . . .

To some degree, we all take for granted that this stuff will just always happen so that we can wake up in the morning, take a hot shower, eat breakfast in comfort and go about our busy days.

But we really notice our dependence on these energy sources when something unexpected occurs. Everything from a hurricane in the South to tornadoes in the Midwest, to blizzards in the North country can bring aspects of the infrastructure to a veritable halt.

A couple years ago here in Northwest Ohio we had a minor example of this. In March, just when we were all thinking the worst of winter was over, we had a tremendous ice storm. The ice, draped over branches like cake icing, caused tree branches to break or to droop heavily onto power lines everywhere in the region. The sheer weight of ice was outright snapping wires in two.

Apparently, thousands of people in our area were without power. Some had no electricity for days. I still remember driving to a friend's house to pick up a computer disc he was sharing with me. When he came to the door, there he was, wrapped in blankets and wearing a stocking cap and mittens inside his house! I looked at him and must have had a puzzled look on my face. He said, "We haven't had power since this morning!"

I hadn't even been aware of the power outage! We were just as warm as always with our masonry heater and we were using its oven for cooking! Our energy independence allowed us to sail through this little weather emergency with no additional stress, effort, or inconvenience. Meanwhile, some lost their lives that week because of their utter dependence on a fragile infrastructure.

When we consider how a simple event like this can alter someone's life, it makes the masonry heater seem like a cheap investment – insurance against that which no one else will insure: simple failures within a complex system of energy distribution.

The Masonry Heater Store is located at 7416 Airport Highway, Holland, Ohio. It is 2 miles west of exit 8 off I-475/23 and 5 miles east of Ohio Turnpike exit 52. Please call 419-825-3031 or e-mail Tulikivi@fnaturalhomes.com for more detailed directions. **Open 10-4 Sat. only or by appointment.** 

### Understanding Radiant Heat

Our world is heated by one single radiant heat source also known as the sun. Without any gadgets, blowers, or special devices, it manages to keep the Earth at adequate temperatures for human survival. The sun does not heat air and then send it to the Earth to keep it warm. Instead, the sun simply shines on the Earth and warms the Earth (and the things on it) directly.

Warm air on the Earth is a result of the sun's radiant heat warming things like farm fields and rocks and mountains. Air passing over something warm picks up warmth itself. But those of you reading this know quite well that the air outside is not always warm. In fact, winter's cold should be a reminder to you that air is not a dependable heat storage medium. And wind chill factors should remind you that moving air always makes you feel colder.

Yet, if you go outside on a winter day when the sun is shining brightly, the sun on your face or your shoulders will feel pleasantly warm. How is it that you can feel penetrating warmth when the air temperature is near freezing?

The answer is that pure radiant heat does not depend on air to make its effects known. Radiant heat is actually a form of invisible light. It travels *through* air to reach you and all the things around you. And it travels at the speed of light!

A masonry heater is as close as you can get to having the sun shining directly on you even on a cloudy, snowy day. A masonry heater is a true radiant heater, emitting heat that's at the same wavelength as the sun and your personal body heat. This is why it is so pleasant to experience. It's something your body innately recognizes as soothing and comfortable.

At the Masonry Heater Store, we regularly tell people that a masonry stove is a radiant heater. Yet, many folks fear that all the heat from the masonry heater will rise and make the bedrooms too warm or that the heat will all pool in the cathedral ceiling so that they will need a fan to circulate it.

This thinking all stems from the usual concept of heating air. Hot air does rise. And an abundance of hot air will pool in a cathedral ceiling or in upstairs rooms. But a masonry heater is not designed to heat air. It is designed to radiate warmth.

If you think again of radiant heat as being like light, this will begin to make more sense. Imagine having a light bulb located centrally in your home. When it is on, it evenly lights the walls, the ceilings, the furniture. You won't see light pooling in the cathedral ceiling. And you won't see less light on the floor than on a ceiling the same distance away.

What you will notice is that the light is less effective at lighting the further from the source you are. So, for example, down a hall you will still get some light, but not as much as when you are right under the bulb. And, of course, you get no light from that bulb into a room completely closed off from the bulb.

This is perhaps where the analogy ends. Because what is unique about true radiant heat is that it heats things. So, you won't get direct radiant heat into a room separated from the heater by a wall. But the radiant heat will be warming the wall – the wood studs and drywall will all absorb heat. Then they become radiant heaters radiating toward everything around them.

A masonry heater can thus heat large living areas, even full houses, by this same principle. By heating everything – walls, ceilings, furniture, and people – it heats the whole living space. Air temperatures from room to room will be relatively even.

This entire aspect is why it is that a masonry heater does not overheat the area it occupies while leaving the rest of the areas too cold. It is heating things that in turn heat other things which heat further things. The continual requirement for and distribution of the heat keeps everything at a relatively constant temperature.

It will, however, always be true that the area of greatest comfort will be in the areas that directly see the masonry heater, because that is where you will feel the heat directly from its source, just like the sun on your shoulders on sunny spring day.

#### Healthy Hearth

Did you know that the radiant heat from a masonry heater is the healthiest way to heat your home?

Now that we are planted firmly into winter weather, everyone in the Midwest is keeping as much activity as possible indoors. And, as usual, colds and flu, coughing and sniffing, sneezes and stuffiness are more prevalent.

Many of the winter illnesses begin with irritated nasal passages. In the winter, it is easy for nasal irritation to happen for most people because a forced air furnace is running.

Heated warm air forced into your home is very, very dry. And, of course, you keep your doors and windows closed so that you can keep all that warm air from escaping. The end result is that the indoor humidity drops very low in the house.



Not only is that warm air forced into your house, but you are also forced to breathe that same dry air. Your nose and all nasal passages are meant to be moist and warm. But when you have to breathe dry air continuously, there is a drying effect on your nasal passages as well.

This drying effect creates the perfect conditions for nasal infection. The body's natural moist protection against irritation has been diminished. At the same time, you are breathing in dust that has been scorched by its exposure to the hot heat exchanger of

your furnace. This dust is just along for the ride when the air comes blasting out of the various ducts of your home.

(You actually smell that scorched dust when you first turn on your furnace in the fall – after there has been a long time for dust to accumulate. But the same process happens every time the furnace comes on – even if you can't smell it anymore.)

This super dry dust becomes like sandpaper on your soft nasal tissues. It abrades and irritates. Finally, you end up with an infection that can be manifest in many forms like a runny nose, sore nose and/or throat, stuffy nose, coughing, and sneezing. Your overall resistance to illness is reduced.

Because a masonry stove heats 80% radiantly and only 20% by convection (warm air), it does not superheat air or scorch dust. Indoor humidity levels in a home heated with a masonry heater remain higher.

This allows your nasal passages to remain moist and healthy. And the greatly reduced quantities of stirred-up dust in your home add up to much less respiratory irritation. Overall, the air in the living space stays more calm, balanced, and vital. This is a good thing for your family's health during a long cold winter.

-Ken Matesz

#### Did You Know?

The Masonry Heater Store is now open on Saturdays from 10a.m. until 4p.m. If this is not a convenient time for you to come, we are still happy to meet with you any weekday. Just give us a call and let us know when you would like to come!

#### Inside:

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- About Radiant Heat
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