

# **Three Short Reports on Successful Stove Progress:**

**(Paul S. Anderson -- ETHOS 2005)**

- A) Glazed Ceramic Containers That Withstand Thermal Shock**
- B) “Combo-Stove” Integrating Gasifier, Rocket, Vesto, and Juntos Combustion**
- C) Continuous-Feed Small Combo-Stoves**

**Glazed Ceramic  
Containers That  
Withstand  
Thermal Shock**

# Ceraflame<sup>®</sup>

MAIS SAÚDE E SABOR

Refractive ceramic that withstands thermal shock.

Poured, so it can be in virtually any shape. 3+ mm thickness.

Add-on handles and holes can be placed anywhere.

Secret process (no patent disclosures) – Sole provider in Brazil.

Already in production as residential cookware.



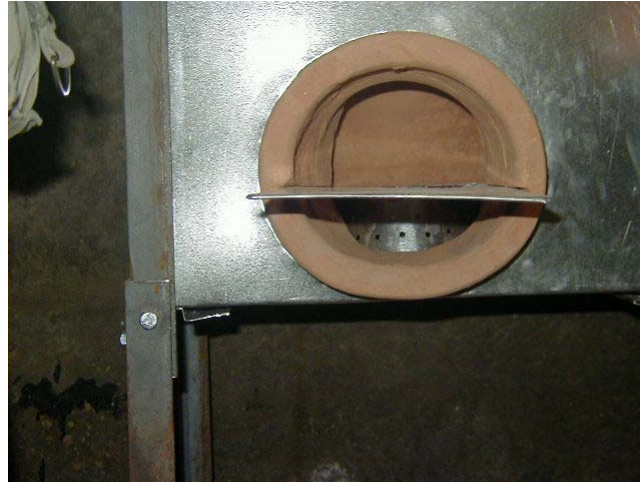
Combustion chambers of Ceraflame ceramics.

**“Combo-Stove”**  
**Integrating**  
**Gasifier, Rocket,**  
**Vesto, and Juntos**  
**Combustion**

First “Combo-Stove” was a Rocket-style Ecofogao with a Juntos-style gasifier fuel chamber underneath plus secondary air & fuel feeding via the lateral opening. (Brazil, Dec '05)

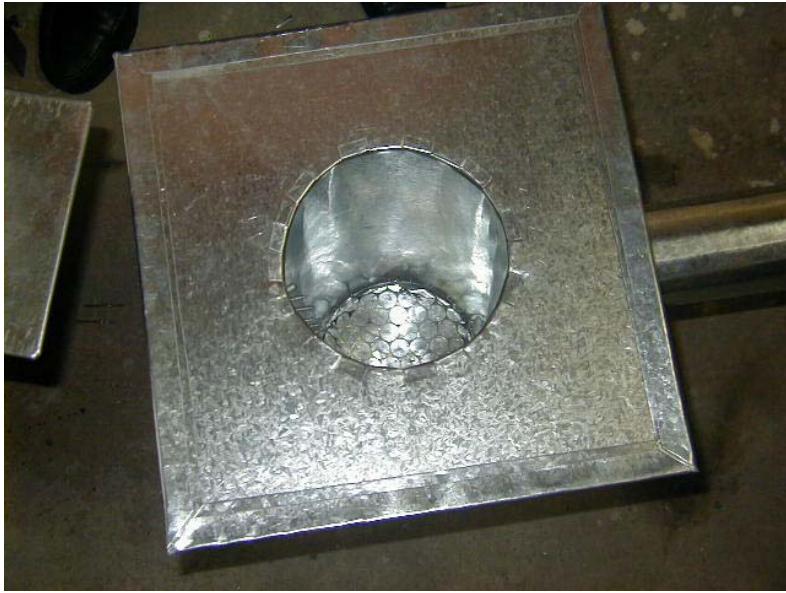


Second “Combo-stove” was a new unit made with a “Rocket elbow”.









Forced air (here via 12-volt fans) greatly enhances the amount and control of the heat.



# The “Combo-Stove” brings together several leading stove technologies.

- Top-Lit Up-Draft (TLUD or IDD) Gasifier ala Tom Reed’s **Woodgas Campstove** technology.
- Lateral opening with place for fuel grate ala Larry Winiarski’s (Aprovecho) **Rocket Stove** technology.
- Continuous-feed into tall combustion chamber ala Crispin Pemberton-Piggott’s **Vesto** technology.
- Combination of combustion methods working together ala Paul Anderson’s **Juntos** technology.

**“Juntos” means “Together.”**

# Continuous-Feed Small “Combo-Stoves”

# Juntos B (Batch-fed) simplified gasifier.

1. Fuel/combustion chamber
2. Air base
3. Forced air (or chimney)



# Two Views of Juntos B Gasifiers



# Two Air Bases with a Fan and a Blower



# Assembled Juntos B Gasifier

with expanded steel mesh to support the pan





# Assembled Juntos B Gasifier

with improvised “3-stone” support for pan



# Assembled Juntos B Gasifier

with improvised free-standing support for pan



# Juntos C (Combo Stoves with Continuous Feed)

- “Tincanium” for hobby-ists and home production.
- Refugee camp versions.
- Ceraflame ceramic combustion chamber.
- Larger units for small commercial/industrial uses.
- Forced air with separate controls for primary and secondary air.
- Chimneys are desirable.
- Wide variety of fuels.





