

ABANA

Quarterly Publication of the
Artist-Blacksmith's Association
of North America



THE ANVIL'S RING

Volume 35 | Number 3 | Spring 2007

THE PIEH LEGACY COLLECTION™

THE BILLY™ TONGS



S7 PUNCHES AND CHISELS



CROUCHET FLY PRESS TOOLING



A33 DRIFTS



VICTORY FORGE SPRING SWAGES



HARDY TOOLS



LARGEST SOURCE
OF BLACKSMITHING
SUPPLIES WEST OF
THE MISSISSIPPI

ONLINE SHOPPING:
WWW.PIEHTOOLCO.COM

WORLDWIDE SHIPPING

928.554.0700
888.743.4866

661 E. HOWARDS RD, STE J
CAMP VERDE, AZ 86322

DEALER INQUIRIES WELCOME



PIEH TOOL COMPANY, INC.™

ARTIST BLACKSMITH • KNIFEMAKER • COPPERSMITH • FARRIER SUPPLIES

STORE HOURS:
M-F: 8-5 SAT: 10-3

TABLE OF CONTENTS | SPRING 2007

DEPARTMENTS

- 3 **President's Message**
- 4 **Mail**
- 7 **ABANA Business**
- 7 **Previews & Notes**
- 12 **Around and About**
Australia's Hot Iron Muster 2006
- 14 **Cover Story**
Pulling out the Stops: A Well-Orchestrated Design Collaboration
By James DeMartis
- 30 **New Works**
Oleg Bonkovsky
Hugh Culley
Gerald Biresch
- 50 **International Report**
Thangtong Gyalpo – The Iron Bridge Builder
By Daniel Kerem
- 53 **Tribute**
Floyd Daniel
- 56 **Calendar**
- 57 **Classifieds**
- 58 **Educational Opportunities**
- 64 **Ad Index**

FEATURES

- 18 **The Greening of Blacksmithing**
By M. Anna Fariello
- 22 **Focus**
Brad Jackson
- 24 **Biodiesel Blacksmith**
By Helmut Hillenkamp
- 28 **Chester's Fence**
By Jerry Spiker
- 34 **Showcase**
Breon Gilleran
- 36 **Selected Works**
Tom Latane
- 40 **Profile**
John Gehl
- 43 **Dona Meilach Remembered**
By Eden Sanders
- 46 **Four Railings**
By David Norrie
- 62 **An Old-Fashioned Barn Raising at John C. Campbell Folk School**
By Paul Garrett



Cover Story,
James DeMartis
see page 14

New Works,
Gerald Biresch
see page 33



Fire Your Forge Today!

- Proven Design
 - Efficient -Reaches 2350°
 - Versatile • Portable
- Many Models Available*



Call for Free Catalog
800-466-6498



Whisper Daddy Model #2
w/open end ports

3-Burner blacksmith forge
Firebox 6" x 12" x 9"
3" x 2" End Ports



NC Tool Co, Inc.
6133 Hunt Road
Pleasant Garden, NC 27313
(336) 674-5654



The Anvil's Ring (ISSN 0889-177X) is the official publication of the Artist-Blacksmith's Association of North America, Inc. It is mailed to the members on a quarterly basis in Spring, Summer, Fall and Winter by ABANA, P.O. Box 3425, Knoxville, TN 37927-3425. Membership is available to any individual or organization interested in the art of blacksmithing. The annual fee for a regular membership is \$55; \$24 of this amount is for a subscription to *The Anvil's Ring* for one year. Permit to mail at periodical postage rates is registered at Farmington, GA, and additional mailing offices. POSTMASTER: send address changes to *The Anvil's Ring*, P.O. Box 3425, Knoxville, TN 37927-3425. Matters related only to membership and subscription, including dues, change of address and subscription complaints, should be addressed to Heather Hutton, ABANA Central Office Administrator, P.O. Box 3425, Knoxville, TN 37927-3425, (865) 546-7733, Fax: (865) 215-9964, or e-mail to abana@abana.org. All editorially related materials, such as articles, book reviews, queries, tips, announcements of activities, ads, etc., should be mailed to *The Anvil's Ring*, Sebastian Publishing, P.O. Box 1849, 6690 Wentworth Springs Rd., Georgetown, CA 95634. Include SASE for material return. (530) 333-2687 phone or (530) 333-2689 fax or e-mail to rob@sebastianpublishing.com. The contents of this publication may not be reproduced either in whole or in part without the permission of the editor or the individual contributors. Contributors retain all copyright privileges; the material is copyrighted solely for their protection. *The Anvil's Ring*, ©2007 The Artist-Blacksmith's Association of North America, Inc.

Serious Metal Work Deserves Serious Equipment... Buy a Striker!

Striker
Tools Company

Extra dies from \$195.00 per set!
Call toll-free for more information
866-290-1263

- Glass-Sand Cast Frames and Valves
- Self-Contained - No External Air Compressor Needed
- From 55 lbs. to 2,200 lbs. Falling Weight
- One and Two-Piece Power Hammers
- Extra-Wide Dies Available (UP TO 60% More Working Surface)

QUALITY...POWER...VALUE!

Call for our FREE DVD Video!
ORDER YOUR NEW STRIKER TODAY!



New! Control the BPM with our VFD Controller Option!

- Original owner limited lifetime warranty on the hammer's cast frame
- One-piece models (STC-55, STC-88 and STC-165)
- X-Y anvils on two-piece models
- Modified X-Y anvils that allow for above ground installation for both the STC-88, STC-143 and STC-165 two-piece models
- All Strikers come with Two interchangeable oiling systems - One for cold weather, and One for warm weather working environments
- Extra-wide dies (up to 60% more working surface!) for all models

Striker Tool Company USA ISO 9002 Certified Factory

Quality power hammers and tools for the metal trades

866.290.1263 phone • 916.374.8297 fax • www.strikertools.com
3939 W. Capitol Avenue, Suite E • West Sacramento, CA 95691

THE ANVIL'S RING

Editor
Rob Edwards

Publisher
Sebastian Publishing

Assistant to the Publisher
Mimi Clark

Designers/Art Directors
SID Graphics

Advertising Manager
Rob Edwards

Next deadline: June 1, 2007

In the hands of members:

Week of August 1, 2007

Address all materials for publication to:
The Anvil's Ring

P.O. Box 1849 / 6690 Wentworth Springs Rd.
Georgetown, CA 95634

Contributor Information

We appreciate and accept written material, graphics and photography pertaining to the art, science and business of blacksmithing.

Our current writer's guidelines are available upon request and posted at www.abana.org

We reserve the right to reject or professionally edit any works submitted.

Advertiser Information

Advertising rates/sizes are readily available for *The Anvil's Ring* and *Hammer's Blow* by contacting Rob Edwards or at www.sebastianpublishing.com

Sebastian Publishing and its staff do not manufacture, test, warrant, guarantee or endorse any of the tools, materials, instructions or products contained in any articles or advertisements published herein.

Sebastian Publishing and ABANA disclaim any responsibility or liability for damages or injuries resulting from the use of any information published in *The Anvil's Ring*.

The Anvil's Ring c/o Rob Edwards

Sebastian Publishing
P.O. Box 1849 • 6690 Wentworth Springs Rd.
Georgetown, CA 95634
Phone: 530/333-2687 • Fax: 530/333-2689
e-mail: rob@sebastianpublishing.com
web site: www.sebastianpublishing.com

Hammer's Blow c/o Brian Gilbert

3404 Hartford • Chattanooga, TN 37415
Phone/fax: 423/876-1016
e-mail: hammerguy@bellsouth.net
Accepting: tips, techniques,
event info for *Hammer's Blow*.

PRESIDENT'S MESSAGE

ABANA NEEDS YOU – PART 2

Just two short months ago I made a request in my first President's Message – "ABANA needs you." Well, here I go again. Instead of talking about the Affiliates, I want to talk about is what it's like to be a member of the ABANA Board and, in doing that, hopefully get you to think about running. Before I talk about some of the good points, I want to tell you straight off that it is not an easy job. Decisions had been made in the past that caused much controversy, e.g., anvil shooting. The opinions on that issue alone would make anyone's head spin. Another decision that has come down the pike has grown into a rather animated discussion – the 2008 Conference. I will address that topic in my next President's Message.

... ABANA NEEDS TO TALK TO THE WORLD...
CREATE A NEW VISION FOR ITSELF AND IT NEEDS TO CREATE A NEW VISION FOR THE CRAFT!"

So far, my sales pitch has not been promising – you will work hard and you will have to endure much criticism. So why should you sign up to run for the Board? ABANA is at a pivotal juncture where things are changing. Dave Koenig who chaired the 2004 Richmond Kentucky ABANA Conference said this:

"ABANA needs a brand new vision. ... ABANA needs to be an organization of a hundred and fifty thousand members and not an organization of five thousand members and falling. To grow the membership and the status of the craft in the world, ABANA needs to talk to the world. ABANA needs to create a new vision for itself and it needs to create a new vision for the craft!"

So if you want to be a part of this vision for the craft ... for blacksmithing ... for metalworking -- whether you are a hobbyist or professional, please take the plunge and run for the Board. The personal rewards are great, while the remuneration is nonexistent. The people you will work with will become lifelong friends. You will be challenged ... and in the end realize that you have needed ABANA as much as it has needed you. ✨

Clare

Clare Yellin,
ABANA President

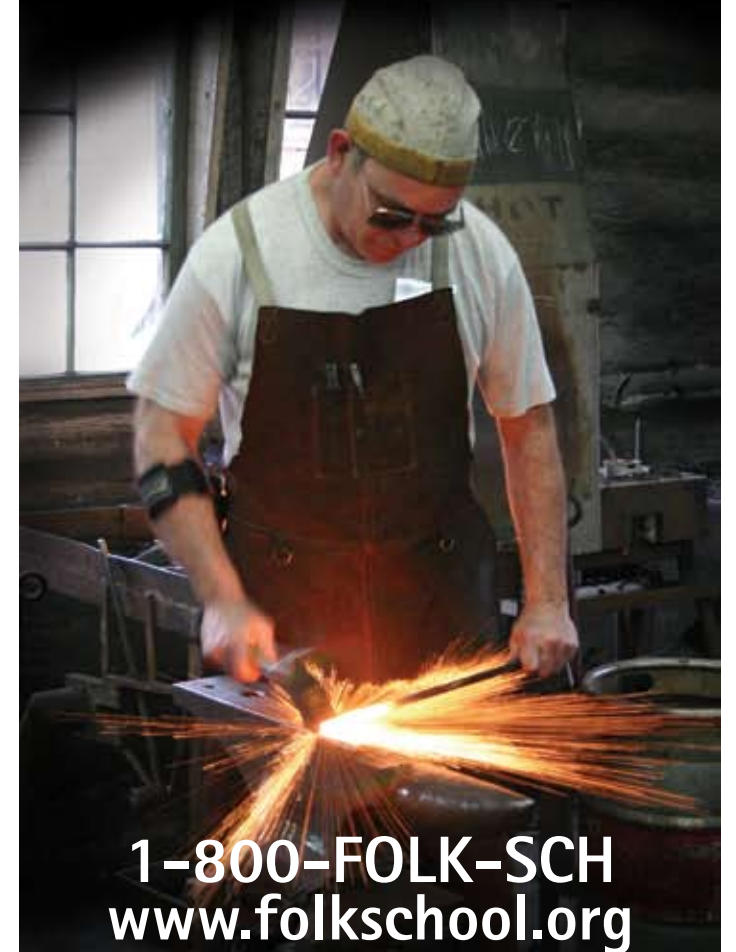


John C. Campbell Folk School

Since 1925 • Brasstown, North Carolina

Instructors for 2007

Bob Alexander	Tony Holliday	Zachary Noble
Vance Baker	Ron Howard	Charley Orlando
Jim Batson	Walt Hull	Chuck Patrick
Judy Berger	Susan Hutchinson	Howard Pohn
Pete Brandenburg	Rick Jay	Greg Price
Julie Clark	Matt Jenkins	William Rogers
Jerry Darnell	Ryan Johnson	David Smucker
Roberta Elliott	Robert S. Jordan	Clay Spencer
Bill Epps	Allan Kress	Kenneth Thomas
Lonnie Farmer	Mitchell Latsch	Bob Trout
Seth Gaddis	Susan Madacsi	David Tucciarone
Mindy & Mark Gardner	Doug Merkel	Alwin Wagener
Paul Garrett	Tom McElfresh	Lyle Wheeler
R.J. Hadle	Fred Mikkelsen	Steve Williamson
Gavin Harris	Joe Miller	Chris Winterstein
Tal Harris	Jeff Mohr	Don Witzler
	Lou Mueller	



1-800-FOLK-SCH
www.folkschool.org

MAIL

DEAR EDITOR,

I wrote the following in a poetry class I took last fall, about a door handle my husband Tom made several years ago. *Photo of the door handle is on the right.*

Kitty Latane, Pepin, Wisconsin

A DOOR HANDLE FOR ST. MARK'S CHURCH

The smith applies the hammer with
The full force of power and thought,
The angle and placement of each blow
Calculated to create the desired form
In fast seconds between the time
The softened metal leaves the fire
And the temperature falls to hardness.

The steel is returned to the fire and heated
Again, hammered again, heated again,
And hammered again in repetitive cycles
Bolstered by faith that the chosen bar
Can be compressed, pinched, stretched,
Chiseled, modeled, stamped and filed
Into the figure of a saint.

Catherine H. Latané
Nov. 2006



DEAR EDITOR,

I would like to inform the ABANA membership of a unique opportunity.

The American College of the Building Arts in Charleston, SC, offers a four-year, bachelor of applied science degree in six traditional building trades, including forged architectural ironwork. One of the foundation elements of the education we offer is an 8- to 10-week internship for three successive summer semesters. Last summer we sent students to established ironwork businesses in New Jersey, greater Washington, DC and Iowa.

Each year, as the total enrollment increases, we will be looking for additional companies to host one or more of our students. If you are the owner of an established business, large or small, who might be willing to act as a host company for one of our students, please contact Lance Crowe, Director of Student Career Development (Ironwork Program) at the numbers below. If you would

like further information about the programs at the ACBA see our web site www.buildingartscollege.us. Our address is: American College of the Building Arts, 1362 McMillan Ave. Suite 102, North Charleston, SC 29405. Or contact Lance Crowe or me directly about the ironwork curriculum.

Many thanks,
Jay T. Close
Professor of Forged
Architectural Ironwork
843/577-5245 ext. 1008
close@buildingartscollege.us

Lance Crowe
Director of Student Career Development (Ironwork Program)
Professor of Forged
Architectural Ironwork
843/577-5245 ext. 1006
crow@buildingartscollege.us

DEAR EDITOR,

Here in western North Carolina we get the news and other media a bit later than most, so forgive me if you have heard all this

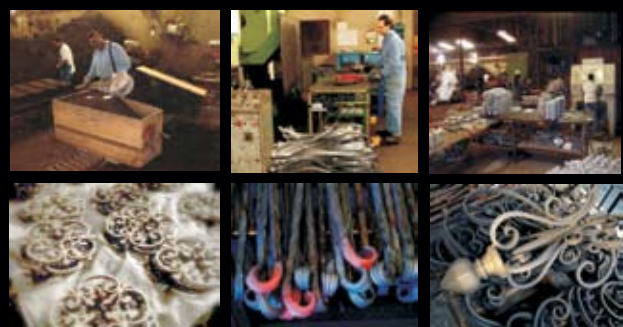
Continued on page 6

TEXAS MICHIGAN ARKANSAS FLORIDA

TMI
TEXAS METAL INDUSTRIES, INC.™

We ARE your
Architectural Metal
Supply Source.

4 Fully Stocked Distribution Centers Nationwide
Custom Orders • Same Day Shipping • Online Ordering



800.222.6033
www.texasmetalindustries.com

GOT DOORS?



Your Iron Scroll Work



KAS Iron Door Kit

NEW
PRODUCT!

GREAT
PRICES

Free the artist in you!

Frame your masterpiece with the highest quality door frame kit worthy of your iron work.

Now you can offer your clients iron doors... we supply the door kit, you supply the scroll work. You will increase your product line and your bottom line by selling a door that cost you less to make!

High Quality Door Kit includes:

- Sturdy 11 gauge steel (3-5mm) door frame
- Oversize sealed ball bearing door hinges
- Pre-hung with adjustable jambs for installation ease
- Mounting tabs for easy installation
- Swing-away "easy to open" glass frame
- Sandblasted & primed for rust protection



Arched tops available too!

KAS Direct Building & Decorating Source
4415 Granite Drive, Suite 600
Rocklin, CA 95677 916.624.2888

see "door kits"
www.KASdirect.com
dhl@kasinc.net

before. Last night I watched a documentary on the global warming threat by Al Gore called "An Inconvenient Truth," and it scared the life out of me. If you have not seen it you should, and you should tell all your friends to see it too.

The film inspired me to write this letter as well as a few others. I began thinking, "What can I do as a blacksmith to lower my carbon dioxide emissions?"

1. I can work more efficiently by preparing what I am going to do with the metal before I light up the forge.
2. I can shut off my propane when not in use. Yes, I know that sounds stupid, but take notice of how long the forge is on with nothing in it. You could invest in a way to lower the gas psi while you are forging.
3. If you take long breaks, do not bank the coal forge - actually put it out and restart it. If you have GOOD coal, this should only take a few minutes or so.
4. When you shut down the coal forge for the day, extinguish it fully with water. If you are worried about cracking your fire pot, simply slide the bulk of the fire out of the fire pot before pouring water on it. Doing this will also save you from having to clean

up a lot of ash the next time you light your forge.

5. Actually doing all of these things will save you money, as money seems to be the bottom line in this country. It's amazing to me to learn that one reason American car companies are failing is because they did not raise their environmental standards by simply increasing our miles per gallon. They have the technology - do they think their money will save them when the storm comes?

Think about our environment,
Zack Noble, Bakersville, North Carolina

DEAR EDITOR,

As I glanced through my recent edition of *The Anvil's Ring*, the article "International Report: The Long Journey to Congo," by Rob Evans caught my attention. Having spent a year in Congo between 1969 -1970, I continue to be interested in that beautiful but troubled country. So, I am wondering as I read along, where in Congo did Rob Evans go? As I scanned the pages, my jaw suddenly went slack -- the author was in Bulape! That was my home for a year with a missionary surgeon and his wife. Considering that Congo is a very large country

and Bulape is a very small station in the remote bush, I was stunned. So many memories of that amazing experience came flooding back.

I distinctly remember, as an 18-year-old kid, watching the local blacksmiths sitting under their *tshtanda* (a small thatched covered hut), puffing a charcoal fire with their bellows. Their anvil was any chunk of metal they could find, but these guys could make anything metal out of any piece of scrap. Indeed, the Congolese smiths were some of the most resourceful and innovative people I have ever met. I still have a percussion cap musket that one smith made for me. The barrel is made from an old water pipe and the stock is mahogany. The trigger guard, ram rod and all other metal parts were forged by hand from scrap metal. In fact, the Congolese blacksmiths were probably the first real blacksmiths I had ever seen.

The forge and blower that Rob set up for them would have been pretty high tech when I was there. Thanks, Rob Evans, for taking me back to one of the most amazing experiences of my life. I wish I could have gone with you.

Chris Hubbard, Dekalb, Illinois
chubbard@niu.edu ✪

CONTRACTS

Central Office contract will be reviewed yearly and extends through 2007. *The Anvil's Ring* contract extends through 2010. *The Hammer's Blow* contract extends through 2007. Accounting and Tax Preparation Contracts extend through 2007.

REPRINT POLICY

ABANA Affiliate newsletter editors are authorized to reprint anything published in either *The Anvil's Ring* or *Hammer's Blow* in their Affiliate newsletter.

SCHOLARSHIPS

ABANA scholarships are available to all ABANA members. The closing dates are: January 1, April 1, July 1, and October 1. Information can be obtained from the ABANA Central Office, call 865/546-7733.

ELECTION OF MEMBERS TO THE ABANA BOARD OF DIRECTORS

The Artist-Blacksmiths Association (ABANA) is run by a board of 15 directors elected by the membership. These elected

volunteers serve as officers, committee chairpersons and members of committees. Five of the 15 directors are elected each year for a three-year term.

To run for election, one is required to be an ABANA member in good standing and provide a nominating petition signed by at least 10 ABANA members. This should be submitted with a photograph and candidate statement to the ABANA Central Office, PO Box 3425, Knoxville, TN 37927, by June 15th of the election year.

NOTICE OF ELECTION FOR ABANA BOARD OF DIRECTORS - TIMETABLE

May 1, 2007 - Notice of election published in the Spring issue of *The Anvil's Ring*

June 15, 2007 - Nominations deadline date, submitted to the ABANA Central Office, PO Box 3425, Knoxville, TN 37927.

August 1, 2007 - Ballot mailing in the Summer issue of *The Anvil's Ring*.

September 15, 2007 - Postmark deadline for completed ballots.

October 1, 2007 - Notification to elected Board members ✪

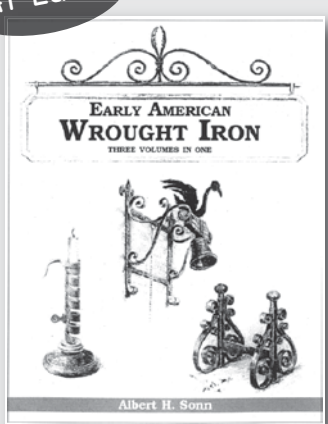
HOFFMAN AT TOUCHSTONE

Just a preliminary note to let you and ABANA members know that I will be teaching at Touchstone, July 23 - 27, 2006. (Web site is <http://www.touchstonecrafts.com>). This will be a gas only class, no coal fires. Of course there will be a lot more hammer time as you won't have to play with a coal fire, clean it out, carry in coal, etc. It will be light it and go, or as the guy selling Ronco kitchen devices might say, set it and forget it (sort of).

We will be doing projects that include forge welding. Each student will use a two-burner propane forge of my design. Andy Chambers has agreed to help me build forges and he will be my assistant this year. See his web site at: <http://arcironcreations.com>. If you would like to purchase one of these forges, I suggest contact either me or Andy prior to the class (save on shipping). Cost for a forge is \$495, includes the blower. I am also having anvils cast in H13, currently the "Colonial" pattern, about 100 pounds for \$475. I will be adding two sizes of double horn anvils to the inventory, hopefully by this summer. Contact me or Touchstone for more information. Early registration is suggested to ensure your space. Jymm Hoffman, Ambridge, Pennsylvania Phone: 724/251-9320. E-mail: jymmhoffman@verizon.net

Continued on page 8

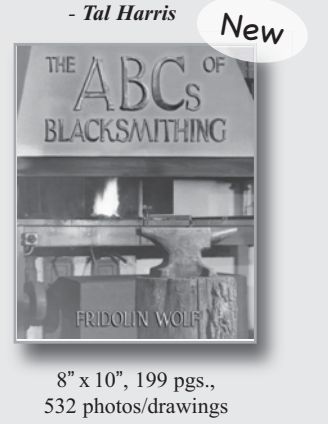
At Last! A celebration of the village blacksmith.



9" x 11", 765 pgs., 3000+ drawings
\$124.00 plus \$6.50 s&h

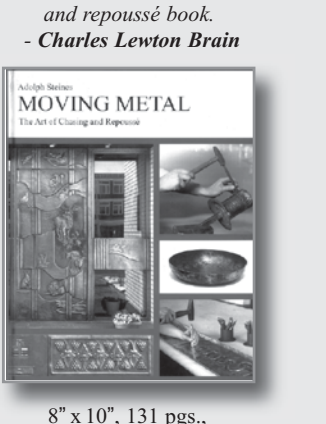
A 'must have' for every blacksmith's library - Tal Harris

New




8" x 10", 199 pgs., 532 photos/drawings
\$45.00 plus \$3.50 s&h

One really excellent chasing and repoussé book. - Charles Lewton Brain

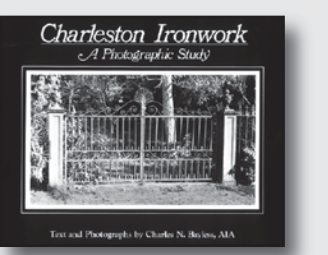


8" x 10", 131 pgs., 218 photos/drawings
\$32.95 plus \$3.50 s&h

If you could only have one blacksmithing book, this would be the one. - Clay Spencer



8" x 10", 157 pgs., 800 photos/drawings
\$42.50 plus \$3.50 s&h




11" x 9", 208 pgs., 295 photographs
\$36.95 plus \$4.50 s&h

SUPPORTING THE ART OF METAL WORK AROUND THE WORLD


Blue Moon Road, Huntingdon, PA 16652
books@bluemoonpress.org
(866)627-6922

Prepaid orders, check, VISA/MC.
See ad in the Classified Section



ACCURACY.

...the number one reason to own a Smithin' Magician top and bottom tool guide. Make tenons, shoulders, grooves or cut all the way through. Order on-line at www.blacksmithsjournal.com or call 573-237-8882, twenty-four/seven. Just \$62 kit, \$97 assembled plus S/H. Die blanks or machined dies available.





'07 Instructors

- Bob Becker
- Jody Best
- Fred Crist
- Bill Fiorini
- Holly Fisher
- Jymm Hoffman
- Glenn Horr
- Dave Olson
- Bob Rupert
- Ray Rybar, Jr.
- Richard Sheppard
- Kirsten Skiles
- Kim Thomas
- Nigel Tudor

Explore new ideas and new techniques in an amazing environment, and study with some of the very best at Touchstone. For a 2007 class and event schedule visit our Web site at:

www.touchstonecrafts.com
or call **1.800.721.0177**



CALL FOR ENTRIES

Appalachian Center for Craft is seeking artists for 2008-2009 exhibitions. All mediums. Deadline: June 1, 2007. For more information, call 615/597-6801. See web site: www.tntech.edu/craftcenter.

THE 2007 FRANCIS WHITAKER MEMORIAL MASTER CLASS

"To continue the relentless pursuit of perfection" F. Whitaker

Instructor: Tal Harris
August 6 -10th

Francis Whitaker Memorial Blacksmith Shop in Carbondale, CO

Information call: Alison Finn 970 704-9021 or email at Finninco@rof.net

Throughout history, the role of the blacksmith has changed considerably. It has dictated how we work and outfit our shops. Until recently, the smithy was composed of a master, journeymen, and apprentices. This hierarchy of workers was not only the way to run a successful productive business, but also served as the means to pass on knowledge and educate the next generation of smiths.

There has not been a period in history which has more greatly affected our definition of blacksmithing than the industrial revolution. The introduction of new equipment and machinery, changes in architectural styles, and innovations in architectural materials have reduced the once-bustling forge to essentially one-person operations where knowledge of traditional ironworking methods and techniques have been lost or significantly minimized. Iron has changed to steel, the arc welder has replaced joinery methods of the past, the importance of design has suffered greatly, and the amount of energy one is willing to spend on a piece has been lessened. The surfaces, textures and overall feel of ironwork is now less organic, and has less of a hand-made quality to it. All of these changes have occurred in a relatively short period of time from the late 1800's until now -- not much more than a lifetime, in fact.



Francis Whitaker working his craft.

FRANCIS WHITAKER, MASTER BLACKSMITH

Francis Whitaker's life extended itself through this period of our history. Francis

started his blacksmithing career in 1927 at the age of 15, working as an apprentice in the shops of Samuel Yellin, and Julius Schramm. Not a bad start! This laid the foundation for his career as he learned about the history of the craft, traditional methods and techniques, and the importance of design in ironwork. He experienced, first hand, the value of education as it was passed down from master to apprentice. Later during WW2, he taught welding to women, then started his own architectural ironworking business which subsequently led him from Carmel, CA to Aspen, Colorado, and finally Carbondale, CO. Throughout his life he witnessed this push towards the obsolescence of his chosen career, as he learned it, and it led him to the conclusion that he should dedicate the latter part of his life to keeping the historic traditions of this art form alive.

THE START OF CAMPBELL FOLK ART SCHOOL AND COLORADO ROCKY MOUNTAIN SCHOOL

As part of this dedication, he helped found ABANA, demonstrated nationally, started the Campbell Folk Art School in North Carolina, and built the Francis Whitaker Memorial Blacksmith shop on the campus of the Colorado Rocky



Francis with a student at the Rocky Mountain School

Mountain School as a learning institution for future blacksmiths. At CRMS, Francis and his assistant Gordo Stonington taught the students at the school, leading them in many architectural projects which have been installed around the campus. They also started a Beginner-Intermediate class and a Masters class at the school which were held each summer for everyone. After Francis passed on, Rocky Mountain Smiths picked up the sponsorship of these two

classes which are still available every year. *"I've left a record that won't easily be erased."* Francis Whitaker

THE MASTERS CLASS

The Francis Whitaker Memorial Masters class is part of Francis's legacy. Now in its seventh year, this very special class is a unique opportunity for practicing smiths to further enhance their education. Each year a master smith is

Books & Videos On Patinas & Mokume
from www.ArtisanIdeas.com

Beautiful Iron
A photographic collection of legendary Francis Whitaker's works. Photos on almost every page. B&W \$40.00

My Life as an Artist Blacksmith
Francis Whitaker in his own words; documents his time with Samuel Yellin, his years in Germany, Aspen, and Carbondale. Interesting and inspirational. A must-have. \$38.00

Tiziano Matteazzi, Italian Blacksmith
See the range and depth of fourth-generation smith Matteazzi's work in this photographic anthology. In Italian but hardly any text. Color. . . \$48.00

Ornamental Ironwork: Two Centuries of Craftsmanship in Albany and Troy, New York
— Photographically documents some of the finest architectural ironwork in America — railings, balconies, fences, and storefronts on buildings great and small. \$24.95

\$6.00 first video
S&H UPS ground.
\$2.00 each additional video.
Or fax order & card info to
Or order online from: www.ArtisanIdeas.com

Artisan North America
505 Kimball Ave., Westfield, NJ 07090
908 272.2666 phone 908 272.1666

SILICON BRONZE

C.D.A. Alloy 655

- SHEET & PLATE
- SQUARE ROD
- WELDING ROD
- CASTING ALLOYS: 95-4-1 & 92-4-4, 1/2" cubes to 20 lb. ingots
- SQUARE TUBING: 1"X1"X.120 wall (alloy 220)
- ROUND ROD
- ROUND TUBING
- FLAT BAR

Fabrication Properties

Corrosion Resistance
Capacity for being cold worked
Capacity for being hot formed
Suitability for being joined by:
Brazeing
Oxyacetylene welding
Gas shielded arc welding
Resistance Welding
Hot forgeability rating

Rating
Excellent
Excellent
Excellent
Excellent
Good
Excellent
Excellent
40

ATLAS METAL SALES
1401 Umatilla St. • Denver, Colorado 80204
800-662-0143 • 303-623-0143
Fax: 1-303-623-3034
E-mail: jsimms@atlasmetal.com
Website: www.atlasmetal.com

MasterCard VISA

CALL FOR QUOTATION OR FREE BROCHURE

TFS anvils

TFS has been in the anvil manufacturing business for several decades, providing quality anvils for the professional farrier, blacksmith, knife maker and hobbyist, ranging in weight from 30 to 500 pounds. All are made in the USA, heat-treated to exact specifications and hand-finished in our shop.

For more information call (800)931-7181 or visit www.deltahorsehoe.com

U.S. Distributors:
Pieh Tool Co., Inc. (888)743-4866
Centaur Forge, LLC (800)666-9175
Blacksmiths Depot (828)667-8868

chosen to teach the class whose philosophy and work is uncompromisingly excellent. This class gives the individual both the time and proper instruction to gain a higher level of understanding of traditional techniques and joinery while still allowing for personal creativity. Dorothy Stiegler spoke of her experience teaching the class: "The basics never change, just the approach to those basics. This class allows one-on-one consistent interaction with a Master for a week. Each student's project took on new dimensions as they allowed themselves to push the limits of their forging ability, knowing they could complete the skills with remarkable accuracy and take their work to the next level." Clay Spencer, and Dan Nauman have also instructed the class. All of these smiths remember Francis's words, "It takes a lifetime to become a master blacksmith. After 20 years, you may think you're a master. But when you look back 20 years later, you'll realize you were just crossing the threshold." Dan wrote, "I have adopted Francis's unwavering philosophy to help the students develop the fundamentals needed to produce fine workmanship. This philosophy is often unpopular

"THE LIFE SO SHORT, THE TRADE SO LONG TO LEARN," APPLIES DIRECTLY TO FORGING, AND TO THINK OTHERWISE YOU ARE ONLY KIDDING YOURSELF."

in today's society. In this throwaway world we live in, it is often difficult to break through the barriers of instant gratification. As the saying goes, "The life so short, the trade so long to learn," applies directly to forging, and to think otherwise you are only kidding yourself."

"What I teach these young folks is not my idea of design. What I try to do is give them the knowledge to express themselves."

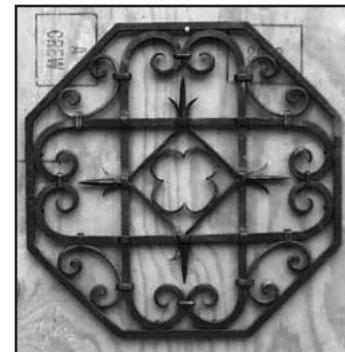
F. Whitaker

Another invaluable aspect of the class is having the opportunity to work in Francis's shop, using his tools, seeing all the wonderful pieces of his work and studying the numerous step-by-step examples which he left for his students. You could spend the week in there just documenting what is around you. One student, Jonathan White, who now runs

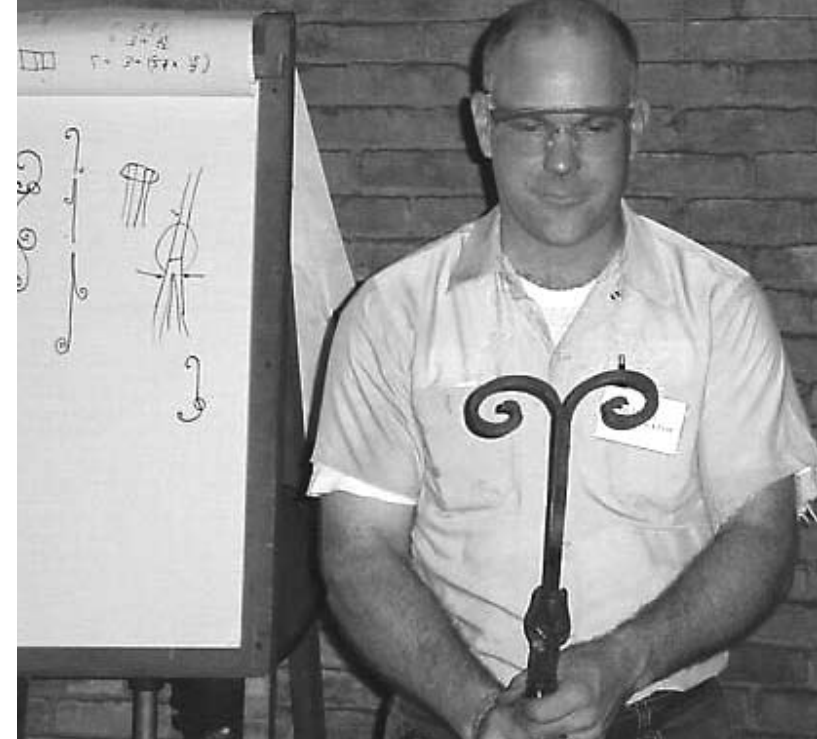
his own business in Carbondale, CO, was lucky enough to have started his blacksmithing career at CRMS. He wrote about taking the Masters Class: "I want to keep learning through my career and I think annual training is really important."

The time which is spent with the other students who are taking the class is so rewarding. Being able to share ideas with others is a luxury most people don't normally have these days. You can learn about other people's shops and businesses and make new friends, too. The ongoing dialogue which occurs throughout the week really helps reinforce and clarify one's thoughts and desires about one's own work.

This year's instructor for the Masters Class will be Tal Harris. Tal resides in Waxhaw, North Carolina, with his wife and chief ironwork designer Kim, and their two boys. He began blacksmithing in 1980 while attending Appalachian State University. Further studies include attending a 6-week program at Frank Turley's School in Santa Fe in 1982, several classes at the John C. Campbell Folk Art School, and individual instruction with Francis Whitaker. Tal teaches regularly at the Campbell Folk



Works by instructor Tal Harris



Instructor Tal Harris working on a project.

School in North Carolina, taught two week-long workshops in Australia in 2000 and has demonstrated at many regional and national events. Traditional methods of the artist-blacksmith are his specialty. We are very excited about his return to Colorado!

If you are interested in taking this class or any other class it is important to find out about all the possibilities for financial aid. There are a whole host of places to look such as The Francis Whitaker Foundation, Rocky Mountain Smiths (your local chapter), and ABANA all offer the opportunity for class funding - all you have to do is apply. Here is the contact information for these organizations:

1. The Francis Whitaker Foundation
Write to: The Francis Whitaker Foundation
In care of CRMS
1493 106 rd, Carbondale, CO 81623
Or email to: www.fwbef@crms.org

2. Rocky Mountain Smiths
Call: Eric Harmon at 303-989-2694 or Dan Nibbelink at 970-532-4387
Or Write: Eric Harmon, 2270 S. Ellis Ct., Lakewood, CO 80228
3. ABANA
Call the ABANA central office at 865-546-7733

Van's INSTANT GUN BLUE

Trusted by blacksmiths and artists for decades!

- * Penetrating permanent blue/black finish
- * Extremely versatile
- * Easy to apply
- * Low odor

Lowest prices now available direct from the factory!

Order online at www.vansgunblue.com or call 218-340-7561

Inquire about retail sales pricing at Sales@vansgunblue.com or on the web at www.vansgunblue.com



SERIOUS METAL WORK...



DESERVES SERIOUS EQUIPMENT!

Striker Tool Company USA

Forging Hammers...Tongs...Platen Tables

3939 W. Capitol Ave., Suite E • West Sacramento, CA 95691
866.290.1263 phone • 916.374.8297 fax
WWW.STRIKERTOOLS.COM

TIMELESS ELEGANCE
Make Crescent City your one stop shop... for all your ornamental needs!

Spears & Castings
Post Balls & Caps
Ornamental Paint
Steel Forgings
Rings & Circles
Gate Operators
Access Control
Anchoring Cement
Locks & Lock Boxes
Furniture
Steel Stampings
Magna Latch
Tru-Close Hinges
Gate Hardware...
...And So Much More

Stocking distributors of
The Lawler Line

You'll like our prices - You'll love our Service!

Crescent City Iron Supply

Melrose Park, IL 60160

Kenner, LA 70062

1-800-535-9842
www.crescentcityironsupply.com
e-mail sales@cciron.com

Australia's Hot Iron Muster 2006, By Helen Ball, Queensland, Australia

Australia's "Sunshine State" of Queensland might seem an unlikely place to begin a journey along "The Road to Damascus." It is thought that weapons displaying intricate patterns started to spread to Europe from the East through the city of Damascus, the center of the trade routes around the time of the Crusades. Now commonly referred to as "Damascus steel," patterned metal is still enormously popular for making blades, cutlery, jewelry and decorative features. For participants in Hot Iron Muster 2006, the focus was Pattern Welding, the age-old art originally used in forging swords, knives and spears.

Visiting instructor Brent Bailey from Orland, California, USA, first enthralled an Aussie audience with his effortless demonstrations of forging patterns during Hot Iron Muster 2003. Having fielded many requests for more opportunity to learn these skills, event organiser Alan Ball was happy to again entice Brent out to Australia for a dedicated workshop. Since its inception in 2000, "The Muster" each year draws blacksmithing enthusiasts from all over the country to Alan's smithy in semi-rural Logan Village just outside Brisbane. "Although there are many talented smiths in Australia, few opportunities exist to see them at work," Alan explains. "Inviting international instructors who enjoy sharing ideas and different experiences gained in other countries adds diversity and depth to our own creative talents."

OPENING DAY

The opening Demonstration Day again attracted an audience from far and wide. Visitors were able to see demonstration pieces and projects from previous events, and a lucky few were able to purchase some of Brent's unique artwork or highly sought range of tools. The forging action warmed up with Brent taking 16mm round stock to hammer out a leaf, folding it in half to create a vein along the fold line before chiseling it open again to reveal the stylish result. Next, combining wrought iron from an old wagon wheel with an industrial circular wood saw blade, he welded together a 9-layer billet which he then drew out to about an 8mm thick bar. Folding over about a 20mm section, he welded that flat to the bar, then continued to fold sections over at 90 degrees only, welding after each fold. This process soon produced a cube about 40mm. A quick polish and etch revealed the

pattern. Sketching several possible scenarios, Brent illustrated how combining cubes in different arrangements could produce a variety of finished patterns.

To demonstrate using a 'rope twist' as a deco-

"ALTHOUGH THERE ARE MANY TALENTED SMITHS IN AUSTRALIA, FEW OPPORTUNITIES EXIST TO SEE THEM AT WORK,"



Photos by Helen Ball

Brent Bailey demonstrating forging a billet

orative feature, Brent first made a handled swage tool to notch the bar and round the edges in one operation. Taking two pieces of 6mm round tacked together side by side, he hammered them into the heated top and bottom plates to form a rounded 'uu'. He then demonstrated its effectiveness to form a smooth twist in 12mm round stock.

With hand tools being favorite projects for Brent, he then forged an adze, all the while giving invaluable tips in hammer control, how

to rotate the item to ensure that it doesn't lose shape and keeping holes straight while punching. Relating his experiences in Zimbabwe and South Africa, he explained how he had made tools and equipment from the limited resources available - right down to simple but effective bellows.

As a special memento of the event, Brent forged a cross-peen hammer and along with his own touchmark, stamped it especially for the 2006 Muster. It was offered to the audience at auction to finish off a great day of blacksmithing *infotainment*. After some spirited bidding, it was knocked down to Rob Smith, a participant in the coming week's workshop.

After a day of watching Brent having all the fun at the forge, workshop participants were eager to get their own irons into the fire on Monday morning. Brent had prepared a guide to selecting suitable materials, including readily-found steels, some possible combinations, the process of creating billets, and the all-important management of the forge. Also containing photographs and illustrations of work-in-progress and finished patterns, it was to serve as a ready reference for the endeavours to come.

To 'tune in' to the welding process, the first project made use of steel cable. Once heated, Brent recommended tightening the twisted strands. This helped ensure a secure weld and the subsequent drawn-out bars revealed a closer pattern after etching. Impatient to see a finished product, everyone proceeded to fashion their desired project, with knives and bracelets being popular results.

THE WORKSHOP CONTINUES

Experimentation was very much the order of the week. For light and dark contrast, supplies of mild steel, wrought iron, spring steel, 01 tool steel, plough disc and bandsaw blade were pre-cut for easy stacking. Brent first demonstrated a simple twist pattern, starting with nine layers of wrought iron and circular saw blade. After two folds and welds, the resulting 36-layer stack was twisted and forged square again. After being ground to reveal the pattern, Brent was able to show how cutting the billet in different profiles could produce totally different results. He continued to forge this billet into a unique wood chisel.

Mild steel and old plough disc proved to be an

interesting combination for a 'zebra stripe' pattern. Thirteen layers were drawn out to a flat bar approximately 8mm x 32mm. That was folded alternatively backwards and forwards on itself to form a 32mm square stack about 75mm high. The stack was then forged solid and fashioned into a very stylish cross-peen hammer head.

Each participant selected his preferred materials and patterns, producing a great variety of billets that were then finished into knives, forks, bracelets, bowls, hammers and chisels. The three power hammers and treadle hammer worked overtime throughout the energy-filled week. The local supermarket experienced its biggest sales of borax in years, and a casual observer around the forges could be forgiven for thinking that Logan Village had experienced its first-ever snowfall!

Among all this hyperactivity, there were some rest breaks for more social pursuits. Lunchtime provided an opportunity for a bit of 'show-and-tell' about the other interests of the group. Sharka Bosakova displayed her talent for silversmithing with some fine contemporary-style jewelry. Paul Martini raided his collection of black powder replica firearms to show us reproductions of an 1858 Enfield .577 calibre muzzle loader from the American Civil War period, and a Sharps 45-110 long-range rifle made famous by Tom Selleck in the movie, "Quigley Down Under."

An evening was also spent over a BBQ steak and a cold drink, and just to prevent any possibility of withdrawal symptoms setting in, entertainment was provided in the form of blacksmithing videos. Through that medium, we were able to visit the USA to see the workshops of Ivan Bailey and Tom Joyce, and get some tips on power hammer techniques from Uri Hofi at the Big Blu Power Hammer School.

OTHER HIGHLIGHTS

We also welcomed some overseas visitors during the week. From Washington State in the USA, the publishers of the *Blacksmith's Gazette*, Fred



Hammer & chisel, demonstration projects

Holder and his wife, took the opportunity to call in while on holiday in Australia. And as part of British visitor's Ian Lowe's marathon adventure to visit blacksmith shops all over the world, he spent some time recording the activity for his travel logs.

The end of the week came all too quickly for our band of enthusiastic blacksmiths. The impressive array of items proudly gathered for display was a fitting reward for their untiring efforts and new-found creativity. Brent's

expert guidance had de-mystified the art of pattern welding, and laid the foundations for the development of this skill in new and eager hands.

Editor's Note: Alan Ball is always happy to talk to smiths interested in visiting Australia as guest instructor for Hot Iron Muster. Email smithy@villagesmith.com.au, or phone 61-7-55468211. ✨



Knife butt, participant's project

COVER STORY-PULLING OUT THE STOPS:

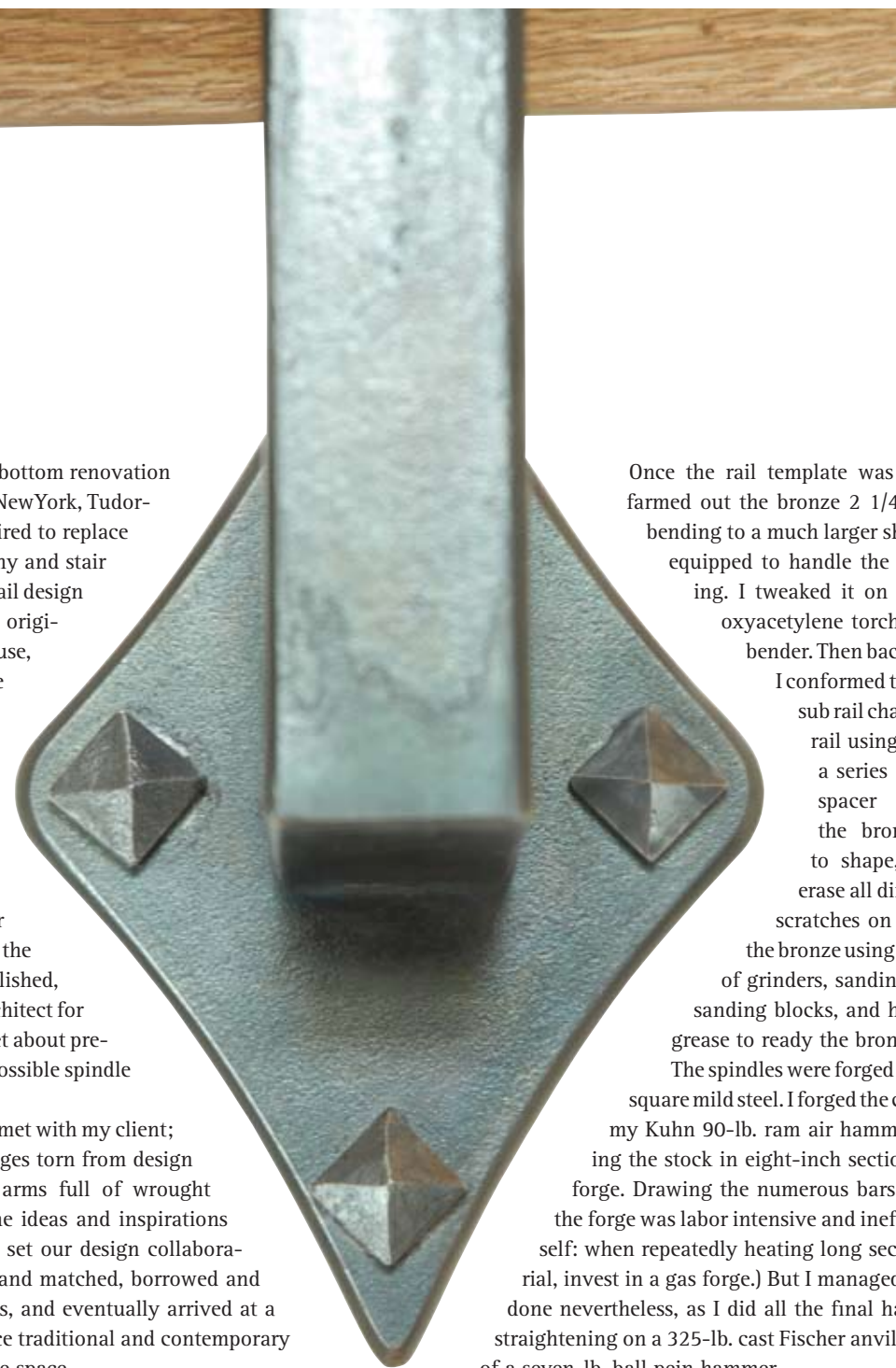
A Well-Orchestrated Design Collaboration By James DeMartis, Sag Harbour, New York

Aiding in the top-to-bottom renovation of a Southampton, New York, Tudor-style home, I was hired to replace the existing wooden balcony and stair rails with one of metal --a rail design more in keeping with the original architecture of the house, while also reflecting the sensibility of the client and architect. My client knew he wanted metal but was open to input on the choice of metals and exact design. I suggested wrought metal for the spindles and bronze for the sub and cap rails. Once the material choices were established, I asked my client and his architect for their design direction as I set about preparing several samples of possible spindle forgings.

A couple of weeks later I met with my client; he, armed with a pile of pages torn from design magazines and me, with arms full of wrought iron. We sorted through the ideas and inspirations we had both collected and set our design collaboration in motion. We mixed and matched, borrowed and invented new combinations, and eventually arrived at a final design that was at once traditional and contemporary and tailored perfectly to the space.

THE PROCESS

Now it was time to get to work. I chose to offset the spindles to both increase the functionality of the narrow stairway and also define the stair as the boldest statement once inside the home. I salvaged the original wooden handrail to use and modify as my template for the semi-circular stair.



FORMING THE DIAMOND SHAPES

The diamonds were formed using a hot cut to slit the stock; the diamond shape taking form by upsetting the split section (five inches long) on a second anvil on the floor. I then finish-shaped the diamonds with a final heat on the Fischer face while keeping a close eye on their consistency and straightness. The opposing direction

Once the rail template was established, I farmed out the bronze 2 1/4-inch cap rail bending to a much larger shop, one better equipped to handle the general bending. I tweaked it on site using my oxyacetylene torch and Hossfeld bender. Then back at my studio,

I conformed the shape of the sub rail channel to the cap rail using the torch and a series of clamps and spacer blocks. Once the bronze was bent to shape, I set out to erase all dings, nicks, and scratches on the surface of the bronze using a combination of grinders, sanding drums, files, sanding blocks, and heaps of elbow grease to ready the bronze for patina.

The spindles were forged from one-inch square mild steel. I forged the chamfers using my Kuhn 90-lb. ram air hammer while heating the stock in eight-inch sections in my coal forge. Drawing the numerous bars in and out of the forge was labor intensive and inefficient (note to self: when repeatedly heating long sections of material, invest in a gas forge.) But I managed to get the job done nevertheless, as I did all the final hammering and straightening on a 325-lb. cast Fischer anvil using the face of a seven-lb. ball pein hammer.

Tim Lee, Photographer





SOME FUSSING AND CAJOLING ENSUED BUT A HAND GRINDER, FILE AND MY TRUSTY SUPER JAWS WERE EQUAL TO THE TASK. THE COMPOUND CURVE IN THE FINAL ASSEMBLY PROVED CHALLENGING, BUT I ULTIMATELY WRESTLED IT INTO SUBMISSION.

twists were done next in the leg vise using the oxyacetylene torch for more precise heat control and my largest monkey wrench for twisting leverage. After all the forging was complete, I cut the stock to length in my Dake/Johnson horizontal band saw (an overseas import, but a true cut nonetheless). Next came the squaring and sanding of the spindle ends on the vertical/horizontal six-inch belt sander. Following this, I spent some time hand filing a slight bevel at the ends to lend a hand finish to the cuts.

Next came readying the spindles and rails for installation. I set up a jig in my drill press and drilled a 1/4-inch hole three quarters of an inch deep at each end for the balcony spindles. I tapped a thread into the top end to receive the sub rail and added a second smaller hole at the base for a set screw. This made installation of the balcony rail a snap. I secured hanger bolts into the floor at approximately four-inch spacing, then set the spindles loosely onto the protruding end of the bolts. I then sent machine screws through the sub rail and affixed the spindles in kind while anchoring each end to the wall. Last, the cap rail was attached with flat-head machine screws captured from the countersunk underside holes at 18-inch intervals in the sub rail.

The Semi-Circular Stair Rail

The semi-circular stair rail posed more vexing challenges. The patina had been applied in advance (fortunately it was summer and the sun helped to bake in each application of the finish and sear in the oil and wax). The iron spindles were wire brushed and degreased, then darkened with selenious acid (gun glue) and sealed

with three coats of tung oil and three coats of paste wax. The bronze was likewise darkened and sealed with wax.

I chose to keep the material clean and smooth apart from the forgings and opted to tig weld the stringer offset instead of forging the right-angle return. I drew the diamond stringer flange shape and faxed it to my local water jet cutting shop. I cleaned up the kerf and shaped the contour using a one-inch hand-held belt sander. The offset was plug-welded from the backside of the flange with the mig, keeping intersections clean and avoiding added file time. Each spindle was temporarily installed on the stringer then scribed in place and custom cut to length at the appropriate height. The Triton Super Jaws portable vise stand held each spindle fast as I hand cut, using a portable and very accurate and easy-to-use Milwaukee band saw. I had pre-drilled and tapped the top ends of each spindle extra deep in advance to retain the threading after the on-site cuts. Some fussing and cajoling ensued but a hand grinder, file, and my trusty Super Jaws were equal to the task. The compound curve in the final assembly proved challenging, but I ultimately wrestled it into submission. The landing cap rail was tig-welded on site, ground, filed, sanded, and patinated in place.

By employing all of the tools, sources, materials and chemicals at my disposal, I was able to complete this project on time and on budget. The job was done and the new railing transformed the space in just the way my client and I had hoped. ✨



THE GREENING OF BLACKSMITHING

By M. Anna Fariello © 2007

Visiting associate professor and project leader, Western Carolina University, Cullowhee, North Carolina



William S. Rogers at the anvil in North Carolina's Jackson County Green Energy Park.

William Rogers adjusting a reducing flame that seeks oxygen and climbs out of the firebox.



Quite possibly the first forge fueled by methane reclamation in the US, the Jackson County Green Energy Park in western North Carolina has had its blacksmith forge up and running since its public opening in October 2006. Metalsmith William S. Rogers has been working at the park to determine the needs of the blacksmithing program, design its facility, and work through the many obstacles that occur whenever a project attempts to accomplish something completely new. A professional smith for almost 30 years and a long-time member of ABANA, Rogers explained, "You can't know how to do this. Instead, it's a matter of applying experience and know-how to a unique situation. I began with a natural gas forge and modified it to create a methane-fired prototype." He tested the forge, made adjustments, and tested it again until he achieved the desired results.

In terms of desired results, Rogers said, "For long-term efficiency and fuel economy, the goal is to get the maximum BTUs from the flame." When a smith initially fires up a forge—with coal, natural gas, or methane—the fuel, without added air, burns in a reducing atmosphere. "At the start, there is more fuel than oxygen," he explained as he demonstrated the initial lighting of the forge. "The flame climbs out of the forge seeking oxygen. That makes for nice photographs, but it's not what's needed in the studio. With flames licking out from around the firebox, the forge looks hot to a novice, but a professional eye can see that the fire is cold and won't provide enough heat to thoroughly forge a piece of steel."

A GAS FORGE

Rogers selected the Michigan-based Mankel Forge to begin the project plan. "I chose a natural gas forge because a low-pressure gas system seemed best able to adapt to methane conversion," he explained. The Mankel Knife-maker model has the advantage of having a long firebox with three burners. "This particular style of forge has the ability to regulate any or all of the three burners individually, allowing the smith to run one burner or all three at the same time to heat a long piece of metal evenly."

After methane was piped to the forge, Rogers lit the first test flame just weeks before the park's opening. The initial test firing revealed that the forge could not yield enough heat with the amount of methane that flowed to it. The first adjustment he made was to enlarge the gas orifice. Then the testing began again. After enlarging all three burner ports, a second gas-to-air ratio test revealed that there was too much gas relative to the air in the system. Having too much gas turned out to be advantageous, allowing him to increase the blower size and provide additional heat.

Once the fuel begins to burn, the smith continues to add oxygen to create a hotter flame. A blower increases the air available to the flame. Historically, these were made from a variety of materials, from animal bladders to today's electric units. Adding oxygen, a smith watches the flame to "read" its condition. "An oxidizing flame means that the fuel-to-air ratio is too low. There is too much oxygen for the amount of fuel available. This atmosphere is hard on forge components, increasing corrosion and wearing them out before their time. This type of flame is also likely to blow out, with not enough fuel to maintain a steady heat."

To work steel hot, a smith likes to be able to achieve 2000 degrees Fahrenheit, visible as white hot. Rogers' first attempts got the metal up to a dull orange. Constant adjustments aimed to achieve an optimum fuel-to-air ratio,

one that yields the maximum amount of heat. The goal is fuel efficiency and a complete burn, so that there isn't any unburned gas going into the atmosphere.

DRAWING FROM EXPERIENCE

The Green Energy Park benefited from Rogers' years of experience running his own William S. Rogers Metals studio. He had the forging experience to make adjustments to the methane system as needed. He also had the teaching experience to explain his actions as he moved through the process. He has been teaching blacksmithing for almost as long as he has been doing it. With an art education and metal degree from Middle Tennessee State University, he began his career in his home state of Tennessee. While still in his twenties, he assisted master smith Francis Whitaker in setting up a blacksmithing studio for the Appalachian Center for Crafts in Smithville, Tennessee. For several years afterward, Rogers taught an evening blacksmithing course at the Appalachian Center. Before leaving the state, the Tennessee Arts Commission awarded him a state-level Artist Fellowship. Moving to Virginia in the mid 1980s, he developed a metals design studio for the Science Museum of Virginia, was a consultant to a studio renovation at the Hand Workshop, and helped the West Virginia Youth Museum improve its smithy.

William Rogers moved to western North Carolina after almost twenty years in Virginia. In Virginia he was selected to participate in the Arts-in-Education programs for both the Virginia Museum of Fine Arts and the Virginia Commission for the Arts. He completed a year-long commission to restore over 200 feet of historic graveyard fencing for the Reynolds Homestead in Critz, Virginia, and was named a master craftsman by the Virginia Folklife Program. In his Virginia studio, he used coal exclusively.

"Another time I didn't use coal as a fuel was for a one-semester course I taught at the University of Panama. There, they didn't have much of anything in the way of studio equipment, so I had to improvise. I locked down a hammerhead in a vise to serve as an anvil and used an oxy-acetylene torch as fuel." Aside from this experience in making do, Rogers explained that he's had the good fortune to work in a number of very well equipped regional studios. He's demonstrated at the Penland School of Crafts and teaches annually at the John C. Campbell Folk School and the Appalachian Center for Crafts. "All three studios are different. There is a lot to know about studio setup, safety, and maintenance, especially in a teaching situation.

Cont'd

A set of decorative doorpulls in steel and copper with brass accents, William S. Rogers Metals.



THE GREENING OF BLACKSMITHING

"ALL THREE STUDIOS ARE DIFFERENT. THERE IS A LOT TO KNOW ABOUT STUDIO SETUP, SAFETY, AND MAINTENANCE, ESPECIALLY IN A TEACHING SITUATION."



The grinding and welding area is well equipped with a ventilation system.

After many adjustments to the Mankel Knifemaker forge, the system ran on gas captured from the closed landfill. Note the intensity of the flame, indicating that the system has reached forging temperature.



William and Lucas Rogers have teamed up to design and construct the smithy at the Green energy Park. The father-son team also taught a metal sculpture course at the University of Panama, improvising a hammering surface when there was no anvil in the university's sculpture studio.



Rogers drew on his past, but also conferred with a number of other experienced smiths. Ken Mankel, designer and producer of the Mankel forge, helped clarify issues regarding natural and methane gas. Dan Millsbaugh, metals professor at the University of North Carolina/Asheville, shared his gas forge design. Lee Sauder, a Virginia smith working in the pre-industrial bloomery technique, talked with him about metallurgy. All in all, he tapped as many knowledgeable resources as possible. For the Green Energy Park, Rogers created a controlled prototype, testing and refining it, only to test it again. After rebuilding the prototype, the process begins again, with testing and further refinement until all the bugs are worked out. Using this process he re-worked a traditional gas forge system to utilize an earth-friendly fuel.

At the October opening, state and local dignitaries stood with Green Energy Park Director Timm Muth in celebration. Muth's knowing smile acknowledged the fact that Jackson County would hold the title of "first" in terms of its methane-fired blacksmithing facility. The project has since received attention from the Environmental Protection Agency, which named the park the Landfill Program Project of the Year. Located in Dillsboro, North Carolina, the Jackson County Green Energy Park may serve as a model for other methane conversion projects nationally.

"GREEN" ENERGY

The "green" in the Green Energy Park refers to the goal of utilizing gases that typically build up underground in community landfills. An end product of decomposition, methane is a potent greenhouse gas. Because landfill gases cannot be allowed to flow freely into the atmosphere without environmental consequence, methane is

usually burned off in a flare. An "eternal flame" marks most landfills where methane emissions are burned off until they are exhausted. Nationwide, innovative communities are experimenting with converting methane for use as a renewable fuel. An added advantage to methane use is that it burns clean. Its airborne by-products are water vapor and carbon dioxide.

Much of the Green Energy Park's infrastructure is not visible to public eye. Holes drilled into the landfill divert methane into pipes that go to a pumping station. A pump provides a steady flow of gas to serve Green Energy Park clients. The Jackson County blacksmithing forge is the first studio in a planned Artisan Village, which will eventually include studios for ceramics as well as a greenhouse complex. The smithy is available for tenant use as well as classes taught in cooperation with the local community college. Beside the blacksmithing facility is a bio diesel production plant, Smoky Mountain Biofuels, Inc., a company that sells biodiesel to the Great Smoky Mountains National Park and local municipalities. North Carolina is attempting to break ground in the green energy field. The state's Lt. Governor, Beverley Purdue, recently proposed that North Carolina could become the first state in the Union to be nearly energy independent by creating a "green" economy. The Green Energy Park's blacksmithing facility is one of the first steps along the way.

If any ABANA members know of other types of "green" blacksmithing facilities, please contact William at wingedgriffinstudios@hotmail.com or call 828-293-3777. His work can be seen at www.rogersmetals.com. ✨

Why Mess with Methane?

By Timm Muth, Project Manager

By tapping into the energy of the adjacent landfill, the Jackson County Green Energy Park (JCGEP) encourages economic development in the local community, provides environmental protection, and offers unique educational opportunities. The project was built specifically to assist journeymen blacksmiths and tenants to transition into full-time businesses. This county-led effort helps tenants to reduce their initial start-up costs and long-term energy costs, but that's just the start. Artisans, greenhouse growers, and biofuel producers gain the prestige of participating in a project that directly impacts local air quality. And the JCGEP, in turn, promotes heritage arts—like blacksmithing—that have been an embedded part of Appalachian culture. Once completed, the park will have created 15 to 20 new jobs, a sizable investment in an area that is culturally rich but economically strapped.

"ANOTHER TIME I DIDN'T USE COAL AS A FUEL WAS FOR A ONE-SEMESTER COURSE I TAUGHT AT THE UNIVERSITY OF PANAMA. THERE, THEY DIDN'T HAVE MUCH OF ANYTHING IN THE WAY OF STUDIO EQUIPMENT, SO I HAD TO IMPROVISE. I LOCKED DOWN A HAMMERHEAD IN A VISE TO SERVE AS AN ANVIL AND USED AN OXY-ACETYLENE TORCH AS FUEL."

Two important health benefits result from using landfill gas in a forge. One is personal; methane is an extremely clean-burning fuel, and is much safer for a smith's lungs than coal smoke. The second reason is of more public concern; methane is a potent greenhouse gas, with 27 times the environmental impact of carbon dioxide. The JCGEP will prevent 222 tons of methane from entering the atmosphere each year, reducing local air pollution and providing environmental benefits equal to:

- removing 916 vehicles off the road, or
- planting 1,305 acres of forest, or
- preventing the use of 11,104 barrels of oil, or displacing the use of 521,870 gallons of gas.

While the landfill gas for the project is essentially free, it is a limited resource with a maximum heat rate of one to one and a half million BTUs per hour. While this amount of gas can provide the heat needed for any user on site, it cannot sustain all of the gas users at the same time. At the JCGEP, this "limitation" is just another opportunity for innovation and experimentation. The blacksmith studio shares a building with Smoky Mountain Biofuels, a producer of vegetable oil-based biodiesel. The biodiesel process uses hot water to heat the vegetable oil and drive the biodiesel reaction.

Like all artisans at the JCGEP, tenant smiths will be selected by a juried committee and offered studio space for up to three years. Applicants will be judged based on technical skills, business experience, need, and the ability to help meet the project goals. Residents are expected to not only hone their crafts, but to develop their people skills as well. Public tours, local festivals, and other community events will be a routine part of life at the JCGEP as being a part of the local community is essential for good business.

To contact the Jackson County Green Energy Park, write to Timm Muth at tmuth@jacksonNC.org or call 828-631-0271.

Brad Jackson, Queensland, Australia



I have been a blacksmith now for close to seven years. I am 25 years old; my career began after enrolling in an ornamental forging class at the Ultimo Tafe institute. Having enjoyed both metalwork and art during school, smithing seemed the natural progression, and I soon entered an apprenticeship. The workshop was the old railway workshop's blacksmithing bays in Sydney. It's a heritage-listed building with the majority of tooling left intact. We had two 200s and a 700-watt Massey, as well as every tong, swage, bolster, pad and die you could imagine – walls of them – so it was a real playground.

The focus of the work was largely ornamental, encompassing hand-forged traditional and contemporary scrollwork, restorations, tooling, furniture and sculpture. We also had a small foundry, casting mainly bronze and aluminium art, and a large cupola for the big cast iron jobs. I think I must have had one of the most diverse and intense tuitions available to an ornamental smith. Regretfully, the business closed soon after I left. Opportunities to learn in an environment such as I experienced are rare.

The apprenticeship was accompanied by industrial forging and theory lessons through Tafe, taught by the renowned smith Lindsay Cole. His enthusiastic and patient approach, backed by a lifetime of knowledge, has seen many apprentices through their time and, as a result, is a keystone in the Australian blacksmithing community.

After attending the latest -- and my first



"Organic Table"
Forged and fabricated steel. 44"h.



"WE HAD TWO 200S AND A 700-WATT MASSEY, AS WELL AS EVERY TONG, SWAGE, BOLSTER, PAD AND DIE YOU COULD IMAGINE – WALLS OF THEM – SO IT WAS A REAL PLAYGROUND."



"Azadii" Forged and fabricated steel 48"h



-- ABANA conference, I returned home with a mind awash with styles, techniques and designs. Dorothy Stiegler and Francisco Gazitua were among the most inspiring of the demonstrators whom I had the pleasure of witnessing over the weekend. It seems that Australian forged art is still in its infancy, and relies heavily on overseas influence. This, I think, is largely due to the lack of any serious arts-based metalworking facility. Additionally, the distance between smithies doesn't lend itself to much skill sharing. This is why ABANA has become such a valuable resource for us remote Aussies. Every publication of *The Anvil's Ring* and the *Hammer's Blow*

provides welcome news on techniques and styles, helpful tips and inspiration. Feeling enlightened, I dove into few a projects of my own, mainly for galleries and private residences. Hopefully, they will add to the Australian contribution of the ABANA gallery. I'm not sure if they are of the usual ABANA calibre, but I am proud of my work and of the smithing tradition. My works are currently being exhibited in galleries around Brisbane, and the response has been fantastic! I'm working as a full-time blacksmith tradesman and also demonstrating whenever possible; the extra money made from the sculptures goes on tooling to set up my own smithie. ✨

BIODIESEL BLACKSMITH

By Helmut Hillenkamp, Santa Fe, New Mexico



The waste oil collection trailer being painted.

They used to say that blacksmithing was the king of all crafts, because the blacksmith made the tools for all the other crafts. Still today, a blacksmith will typically forge his own chisels, tongs, hammers and even build large power tools. In an age of global warming and overused resources, Cameron Stoker of Santa Fe has added to toolmaking the idea of creating his own fuel. Cameron runs a one-man blacksmith shop where he creates forged ironwork for private customers - when he is not busy inventing some new contraption or gadget. Here are a few pictures



Washing out the soap from a sample of biodiesel.

"THANKS FOR EATING FRIED FOODS— YOUR OBESITY FUELS MY SHOP"

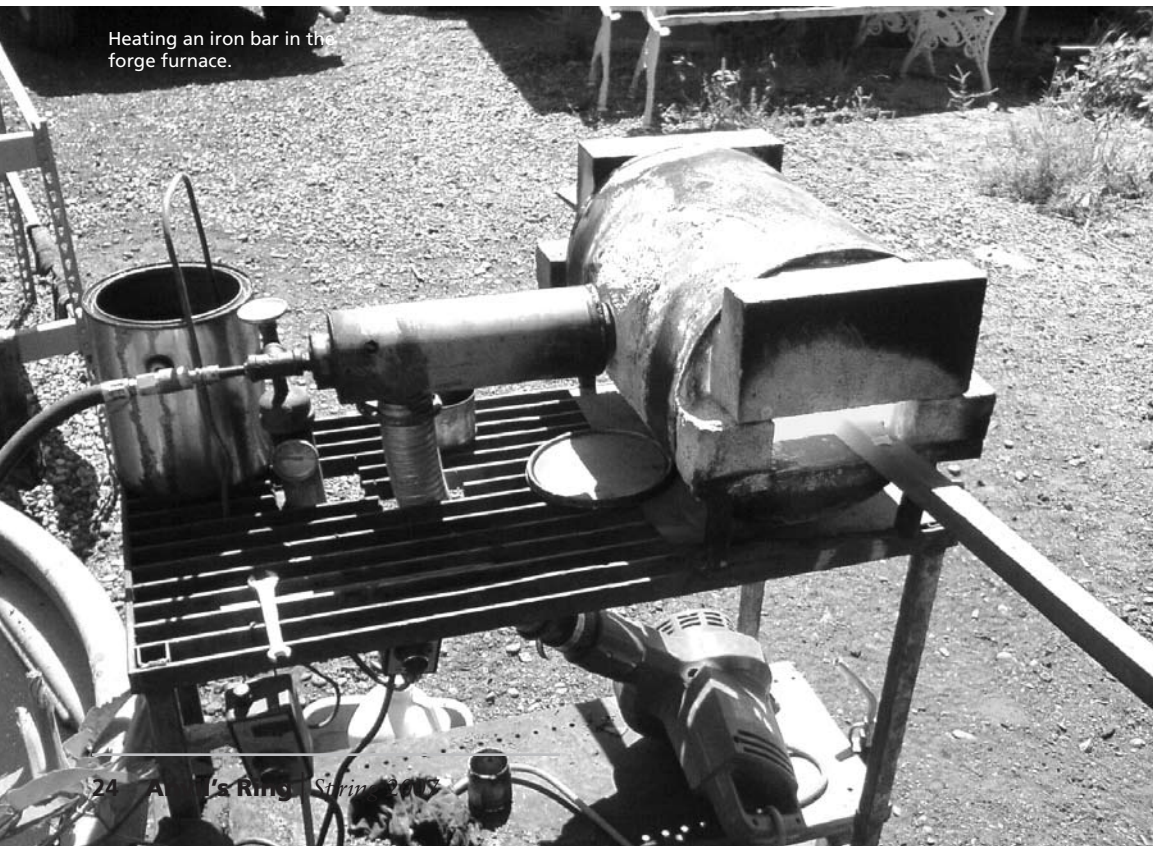


Forging the heated iron bar under the power hammer.



The refinery, a recycled hot water heater with insulation and attachments.

Heating an iron bar in the forge furnace.



CAMERON RUNS A ONE-MAN BLACKSMITH SHOP WHERE HE CREATES FORGED IRONWORK FOR PRIVATE CUSTOMERS— WHEN HE IS NOT BUSY INVENTING SOME NEW CONTRAPTION OR GADGET.

Melting bronze for a casting. The fuel is in the golden can, an old vacuum cleaner serves as air blower.



BIODIESEL BLACKSMITH



An experimental vegetable oil burner, one of many Cameron built.

The molten bronze about to be taken out of the casting furnace. The furnace was made from a trash can and ceramic insulation.



of him developing his own way of refining kitchen grease into biodiesel. The stuff that causes obesity in people can also be recycled and used for fuel. Cameron has converted his propane forges to biodiesel. These new forge furnaces are very powerful and put out a lot of heat. A store-bought kerosene heater works on the biodiesel without modification. Biodiesel melts bronze for his small-scale art castings. If the experiments work out, his VW Jetta Diesel will soon run on the innovative fuel too. Reinventing the wheel one appliance at a time, with the objective of carbon neutral production in mind, Cameron goes through the slow process of cooking old vegetable oil, lye and methyl alcohol to create soap, glycerin and biodiesel. From looking into the past for inspiration, imagining how things might have been in a blacksmith shop in the olden days, he has turned his vision forward, trying to envision a new and cleaner way of doing things. ✨

THE BEST PLACES TO START FOR BIODIESEL INFO:

- <http://www.biodieselcommunity.org>
- <http://biodiesel.infopop.cc>
- and a couple auf Deutsch that may be good (not sure but I've seen them referred to more than once)
- <http://www.fmso.de>
- <http://www.fatty-fuels.de>

INFORMATION ON THE BREWING PROCESS

Technically it's called *transesterification* and its goal is to replace the glycerin molecule of triglycerides with a methyl group from the alcohol leaving what is known as fatty acid methyl ester, e.g. biodiesel.

Every liter of used cooking oil requires about 220ml of methanol (flammable & toxic - be careful) and 7.5-10 g of lye (caustic!). It's heated to 55° C and mixed for several hours. When the mix settles, there is biodiesel on top and about 10-15% byproduct on the bottom.

The biodiesel is washed and dried. The byproduct is about 2/3 crude glycerin, and 1/3 unreacted metha-

nol, and some soap, depending on how wet the oil was to start with. To remediate the byproduct, I use a simple still to boil the methanol out and catch the vapor in a condenser for reuse. After distilling out the methanol, there are a lot of things you can do with the crude glycerin - it's fairly non-toxic at this point. It composts well, some people feed it to cows or anaerobic methane gas digesters (biogas.) It can be used as antifreeze in crude systems, you can make soap from it, it can sit in a landfill or you can burn it in a special burner to heat your biodiesel when making the next batch.

The water from washing the

biodiesel also needs to be cleaned up. It has soap and a small amount of methanol in it picked up from the biodiesel. I add a little acid to it to break up the soap into salt and fatty acid. The fats float up to the top and I pour them back in the pot with the next batch of oil. The salt and small amount of methanol stay in the water used to irrigate (the plants are doing fine). Microbes in soil apparently break down the methanol very fast. Salt is a fertilizer nearly as important to plants as potassium. ✨

*Cameron Stoker, Stoker Forge,
cameron@stokerforge.com,
www.stokerforge.com*



Setting up a different model of the biodiesel furnace. The old propane gas forge is visible in the foreground, hardly used anymore.



Homemade fuel is fun.

CHESTER'S FENCE

By Jerry Spiker, Sidney, Nebraska



Chester's first hunt and blacksmith Jerry Spiker

It had been several years since our family's last hunting dog had passed on. We had always enjoyed having a dog around the house, but I had removed the front chain link fence from our yard to facilitate easier access to the front and backyards for mowing and landscaping. This excuse for not getting another dog worked for a number of years until my daughter e-mailed me some pictures of some German shorthair pointer puppies. My son and daughter explained that since they were both off to school and we were empty nesters, we needed a puppy. Well, I soon found myself traveling to the other end of the state to pick up our new puppy.

On the way home I decided that the need for a new fence could double as an opportunity to advertise my ironwork.



The design had to include a silhouette of both our dog and the shop cat, and incorporate a wide range of ironwork representative of the products I produce.

The fence also needed to have a gate on either side of the house for access to the backyard. I included hand-forged scrollwork, hand-forged grapevines, and hand-forged pickets, as well as pickets and baskets purchased from a supplier. I also included a supplied rail cap and my standard gate lock purchased from a supplier from Europe and finished it off with a nice powder coat.

I am happy to say that not only does our new German shorthair named Chester like the fence, but I have had many compliments on the work from neighbors and customers as well. ✨



...THE DESIGN HAD TO INCLUDE A SILHOUETTE OF BOTH OUR DOG AND THE SHOP CAT, AND INCORPORATE A WIDE RANGE OF IRONWORK REPRESENTATIVE OF THE PRODUCTS I PRODUCE.



Oleg Bonkovsky, L'viv, Ukraine
Iron Candle Stick. 170 - 190sm. First in a series.

Iron Candle Stick - Detail.



Oleg Bonkovsky, L'viv, Ukraine
Iron Candle Stick 170 - 190sm.
Second in a series.

Iron Candle Stick - Detail.



NEW WORKS

Hugh Culley,

Salt Lake City, Utah

Fireplace screen hardware. 6 1/2" x 9 1/2" long. Forged steel.



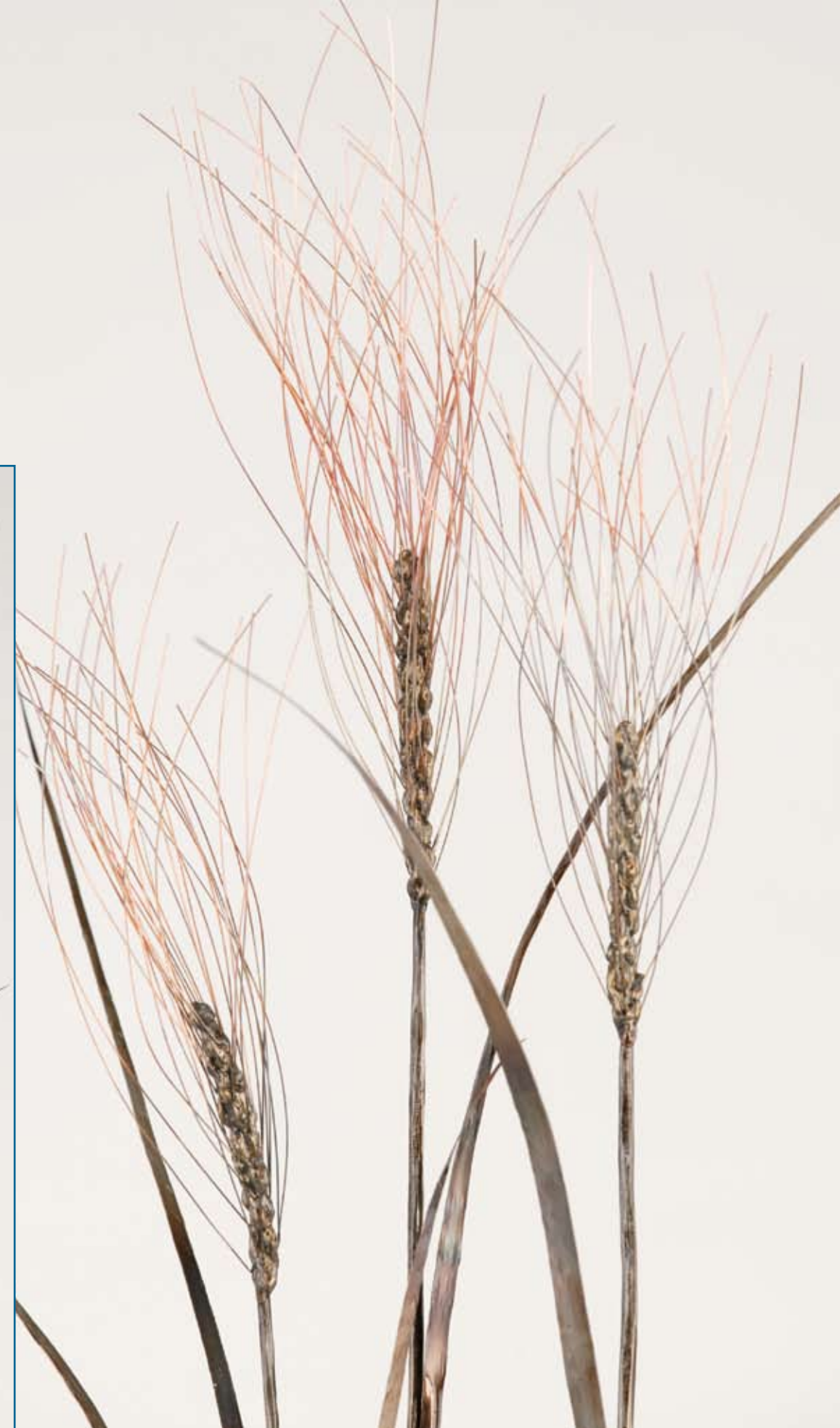
Gerald Biresch,

Lincoln, Montana

Photo credit: McMillan Studio,
Great Falls, MT

3' high. Stem is 3/16 cold rolled. Leaves: 22 gauge flat. Beard is .023 mig wire.

Kernels: mig-welded. Finish is heat-treated patina. Brushed brass patina on kernels. Coated with black walnut, Watco Danish Oil.



Breon Gilleran, Baltimore, Maryland

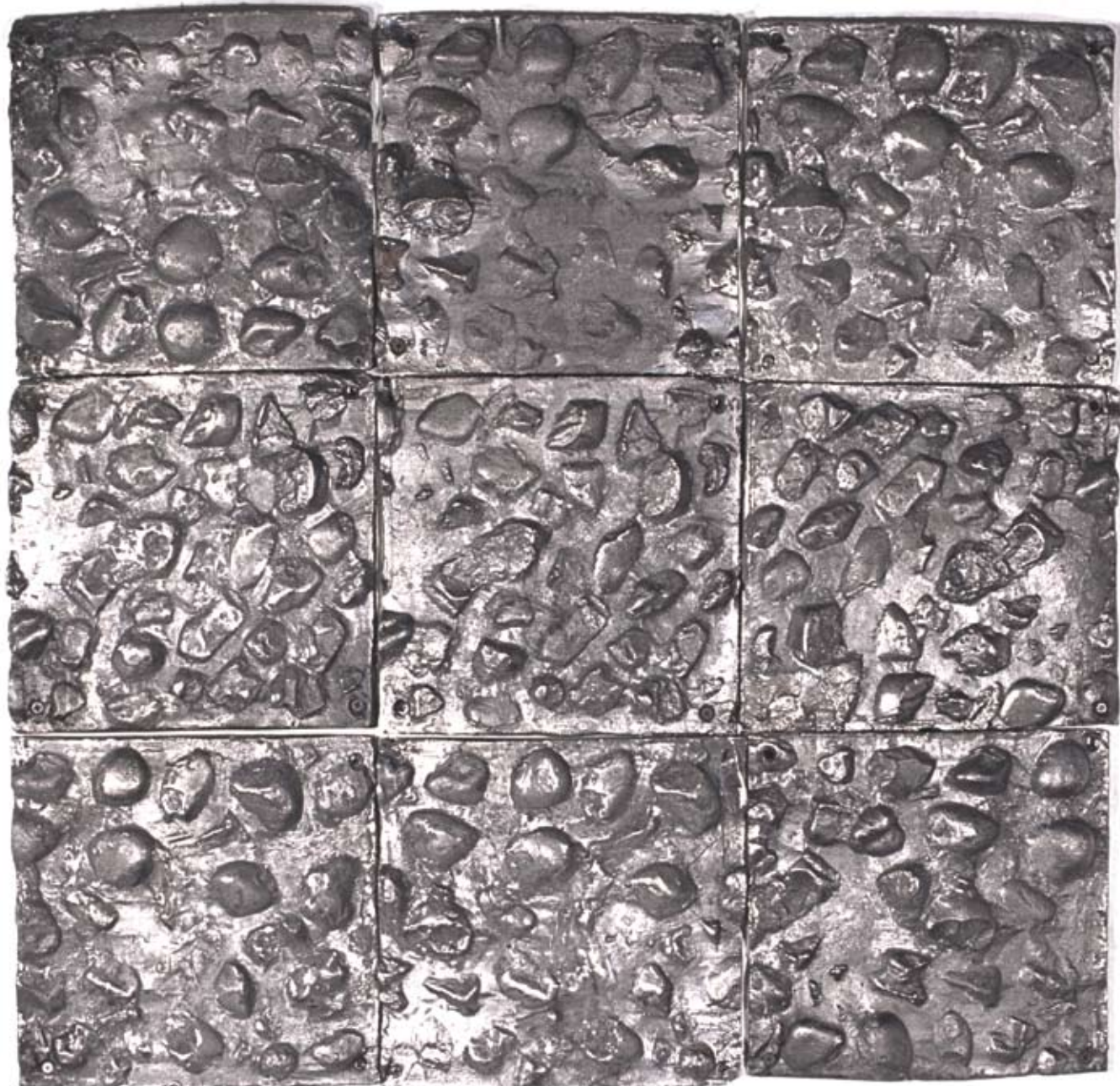
Breon Gilleran completed an MFA in Sculpture at the University of Maryland. As a graduate student, Breon worked with a variety of materials and tools, including the large, rarely used Johnson Brothers trench forge. Using the forge, she discovered she could easily bend steel rod into imposing organic forms, hammering the hot surfaces and shaping forms intuitively to stand on the floor or hang from the wall.

Breon continued her discovery of blacksmithing as a way of making sculpture, studying with Meagan Crowley at Peters Valley Craft Center in 2003 and 2004. She says that Meagan's approach was a revelation in the fact that she translated her training as a metalsmith into the creation of steel forms in the blacksmith shop, utilizing traditional forming techniques including the power hammer.

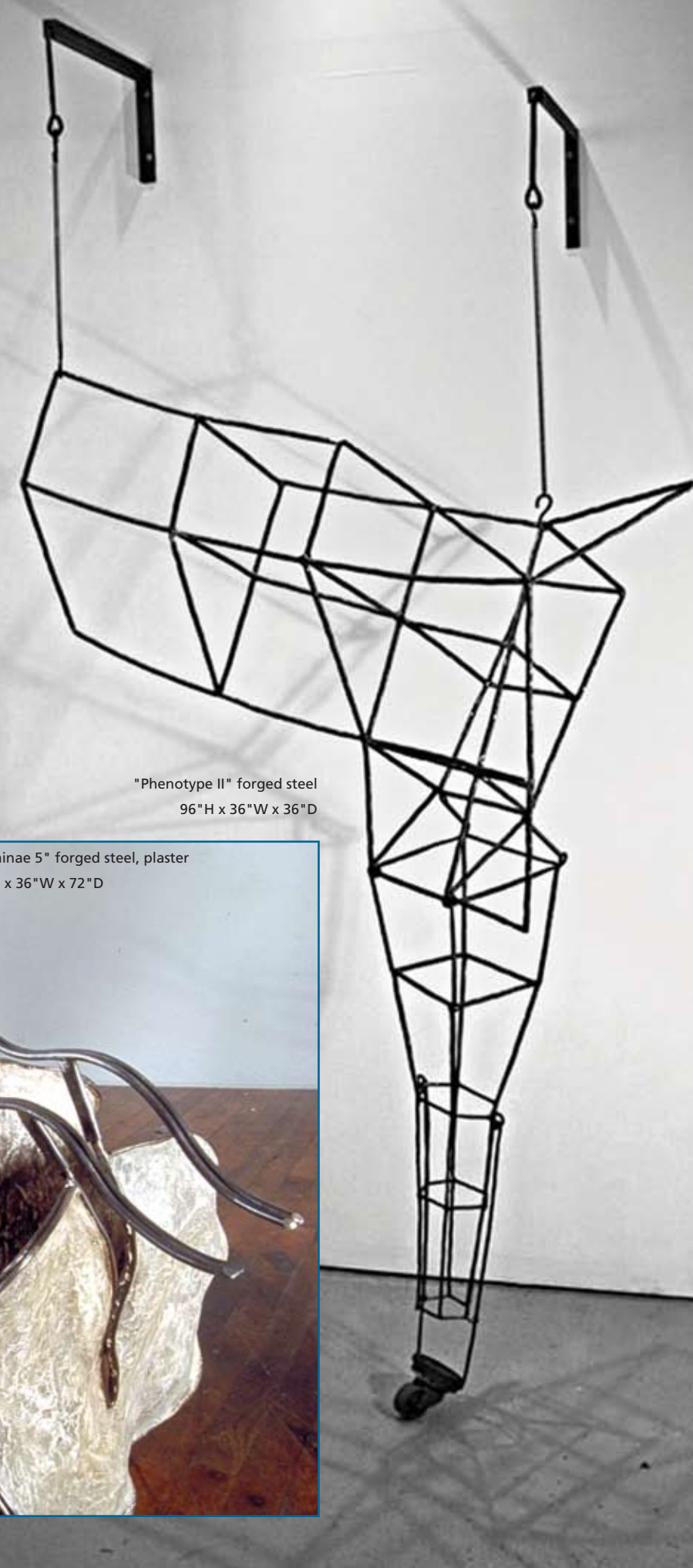
In 2005 Breon had solo shows of her work at Messiah College in Grantham, Pennsylvania, and the Library Gallery at Montpelier Center for the Arts in Laurel, Maryland.

In 2006 she was selected as a semi-finalist for the Trawick Prize: the Bethesda Contemporary Arts Awards. A review of her work was published in *Sculpture Magazine* in June, 2006. Her upcoming 2007 exhibition schedule includes "intervene/activate," a new exhibition in the Union Gallery juried by Donald Russell on the campus of the University of Maryland, College Park, and another, titled "Critics' Picks," with Irving Sandler and Eleanor Heartney, curators, in Baltimore. She will be serving an artist's residency at the Santa Fe Art Institute in June, 2007.

Breon's studio is located at Area 405 in the Station North Arts District, downtown Baltimore, where she has a small forge and is always looking to learn new techniques. She also belongs to the Blacksmith Guild of Central Maryland and serves on the board of the Washington Sculptors Group. She teaches part time in the art department at Goucher College. For further information, visit her web site, www.breongilleran.net. ✨



"Nine Patch" cast iron 36" h x 36"w x 1" d



"Phenotype II" forged steel
96"H x 36"W x 36"D



"Laminae 5" forged steel, plaster
36"H x 36"W x 72"D

SELECTED WORKS

Recent Works By Tom Latané, Pepin, Wisconsin

ALL METAL ON
THESE PROJECTS IS
MILD STEEL.



Candle holder with rooster, 12" tall.

Grand chandelier, 15" wide, 24" tall from bottom to ornament on hanging rod.



All stock has been forged throughout. All joinery is traditional – forge welds, mortise and tenons, forged nails and rivets. No commercial rivets were used since those have more material in the heads than is typically seen on old rivets. Dragon feet on two of the tripods were forged in open dies. Parts of the arms on the two sconces were forged in closed dies. Piercing was done with chisels and punches, except for the stylized dragon heads below the candle cups on the adjustable tabletop candleholder which were drilled and cut with a jeweler's saw. Chasing was done at a low heat so tools could be hand held. Forge welded parts were pickled in vinegar to remove traces of flux and parts to be filed were first pickled to remove scale, which is hard on files. The finish on most pieces is an oil and beeswax mixture containing red and black iron oxide. ✨



Another spike wall sconce, 16" tall.

Spike wall sconce, 15" tall.



Two-candle chandelier with trammel, 13" wide.

SELECTED WORKS

Tom Latané



Oak chest with iron hardware 11 1/4" x 14 3/4" x 9 3/4" tall.

Carved cherry wood box with lock and key, 8 1/2" x 6" x 4" tall.



ALL METAL
ON THESE
PROJECTS IS
MILD STEEL.



Spike candle holder, 10" tall.



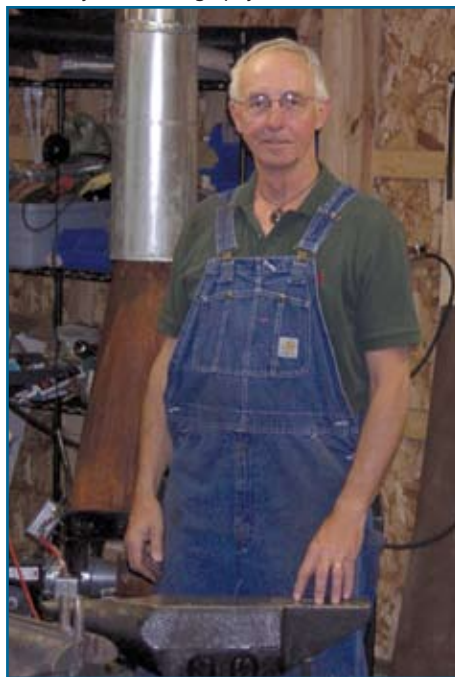
Tabletop candle holder with feet, 20" tall.

John Gehl, West Bend, Wisconsin



Whoosh. 10" h x 3" in diameter. Formed of highly polished rusted steel plate, finished with a light coat of acrylic clear spray. Mounted on a wood base.

Photos by John Photography



Door Knocker. 8 inches high, is rusted light-gauge steel, cut and shaped, with a forged knocker. The piece is buffed and finished with beeswax.

John Gehl is a fourth-generation metalworker. His great-grandfather emigrated from Luxemburg, and established a blacksmith shop in America. His family has been in the farm and construction equipment business for nearly 150 years. While he has had a long-time interest in blacksmithing, it was not until he retired from the machinery manufacturing business that he found the time to devote to it. Guy Geary, a prominent artist blacksmith from Dunedin, New Zealand, further sparked his interest. He also has had additional training at the John C Campbell Folk School.

His materials are generally scrap steel, although occasionally new. Shapes and textures, as well as nature, inspire his creations. All of his works are given special care and attention to enhance the surface textures. He has a well-equipped shop, utilizing both coal and propane forges, as well as a fly press and a power hammer.

His shop and studio is in Manitowish Waters, in Wisconsin's beautiful Northwoods country, where he creates his works. All of his pieces are private commissions, displayed in the homes of his patrons. ✨

"I hope that I am remembered for my sculpture, but I am certain that future generations of blacksmiths will be glad for my anvils."

from "The Making of a Modern Anvil,"
The Anvil's Ring, Fall 2000

Russell C Jaqua
1947-2006



NIMBA ANVILS

A classic Italian design made in the USA

	Weight	Price	\$/lb.
Gladiator	450 lbs.	\$2175	\$4.83/lb.
Centurion	260 lbs.	\$1450	\$5.58/lb.
Titan	120 lbs.	\$ 825	\$6.87/lb.

	Tip-to-Tip Length	Face Width	Height
Gladiator	39"	7"	13"
Centurion	31 1/2"	7 1/2"	9"
Titan	24 3/4"	5"	7"

www.nimbaanvils.com

360.385.7258

Showcase your talent to an international audience



Metal Art Showcase

Competition & Auction

JULY 2007

Entry Deadline June 1, 2007
Submission information available at
www.stampedeagriculture.com
or by contacting Dana Cleghorn at
(403) 261-0127 dcleghorn@calgariystampede.com

Calgary, Alberta,
CANADA

DONA MEILACH REMEMBERED

By Eden Sanders and other California Blacksmiths

What the people who knew her remember most about Dona is her sense of humor and her 30-year, enthusiastic interest in fine contemporary blacksmithing. She became friends with blacksmiths throughout California, the US & Canada and the world because she genuinely loved the craft and the people in it.

Michael Bondi attributes the revival of blacksmithing "as much to her first book, *Decorative and Sculptural Ironwork: Tools, Techniques & Inspiration for Modern Blacksmithing*, printed in 1977, as to the blacksmiths of that period. She received thousands of photos from hundreds of blacksmiths and she treated everyone with fairness. My brother Stephen was one of her consultants and he was impressed with her ability to accept criticism gracefully." "That first book," recalls E. A. Chase, "put together through her enthusiasm, curiosity and innocence, was a collection of work that inspired and had a radical effect on artist-blacksmiths in the United States."

Richard Schrader remembers going through photos with Stephen Bondi for her 2002 book, *Fireplace Accessories*, and the amount of energy Dona had: "After about eight hours with her, I would become exhausted, she was just so busy, and the way she and her husband Mel would banter and joke with each other is one of my most delightful memories. Her biggest pet peeve was receiving non-printable photos of great work." Richard also remembered her as a great peddler, sitting at a table in the late '70s with her books for sale.

I was one of about 150 in attendance at Dona's photo workshop at the 2000 ABANA Conference in Flagstaff. She offered the workshop because fewer than one third of the 3000 photos she received for the 2000 book, *The Contemporary Blacksmith*, were unusable mostly due to poor photo quality. She hated having to omit many really wonderful pieces from the final cut due to bad photos. We all learned a lot that day.

Dona published five beautiful books on modern blacksmithing. At the urging of Norm Larson, Dona, with Schiffer Publishers, reprinted her first book at the end of the '90s. That second printing started a chain reaction resulting in the last four books on modern blacksmithing, published in 2000, 2001, 2002 and December, 2006, just weeks before her death. Blacksmiths everywhere have good reason to miss her, but through her books, her generous *Acknowledgements*, and that inimitable energy of hers which rubbed off on her many blacksmithing friends, she will never really be far away.

The following is how she began her acknowledgements for her first book on blacksmithing:

"If I were to write a sequel to this book, it would most likely be titled 'Blacksmiths I Have Met: How Great and Interesting They Are.' When I began the research for this project, I knew a modern chapter to blacksmithing was unfolding; but I never anticipated the zest, quality, and quantity of the response I received.

The warmth (both from the forges and from those working them), invitations to visit, to photograph, to talk about smithing from people in unsuspecting corners and crannies of the country has been an unforgettable experience."

Dona wrote 86 books including cookbooks and books about various crafts. Her daughter Susan said, "She referred to those in the trade as 'her blacksmiths' and felt an incredible affinity to those whom she worked with on the books.

Her files were filled with letters from ironworkers, one who wrote: 'I picked up your first ironwork book in the '70s and it changed my life.' It meant a lot to our family that several California blacksmiths attended her memorial service. Dona was not only my mother, but my best friend. My father is now in New Mexico and adapting. Like her, he has a positive attitude about life." ✨

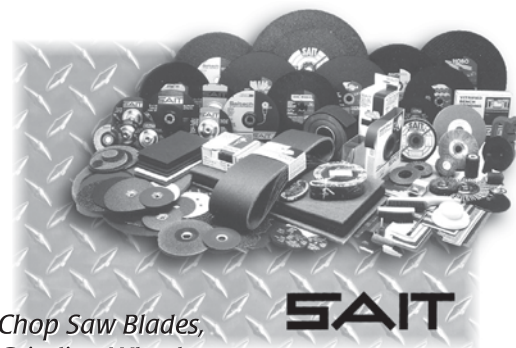


Why Thousands of Metal Workers Call



For All Their Cutting, Grinding and Finishing Products

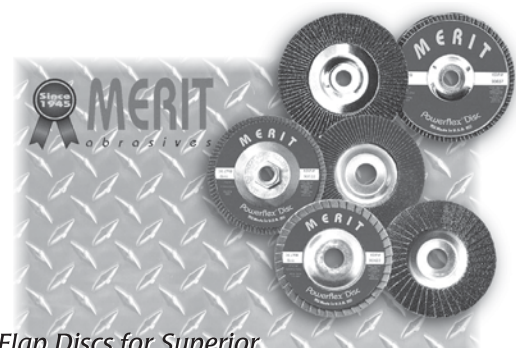
- **Tremendous Selection** of high quality, leading brand name abrasives for cutting, grinding and finishing
- **Outstanding Service** from the most knowledgeable people in the abrasives industry
- **Great Prices and No Minimum orders**



Chop Saw Blades,
Grinding Wheels,
Sanding Discs & Belts



Wire Wheels
and Brushes -
Twist Knot, Crimp Wire & Stainless Steel



Flap Discs for Superior
Sanding & Finishing



Flap Wheels,
Quick Change Discs,
Cartridge Rolls & Non-woven Abrasives

Call for a **FREE** catalog
(800) 444-2999

100% satisfaction guaranteed
Same day shipping • **FREE** delivery with \$50 purchase

CUSTOM HI-DEF PLASMA CUTTING

COMING MAY 2007 TO OUR DALLAS FACILITY

The power of computer driven plasma cutting is now a tool that we proudly offer to our clients:

This newest addition to the King Family has the capability of cutting through virtually any steel plate up to 1" thick, as well as cutting bevels.

Choose from our large selection of pre-designed templates or send us your artwork and we will cut your custom piece for you. King Metals' in house staff of artistic professionals are here to assist you in making sure your ideas come to fruition.

- Plate up to 1" thick
- Plate up to 10' x 5'
- Custom Designs from your Sketch or Drawing
- Steel
- Aluminum
- Copper
- Stainless Steel
- Bevel Cuts

KING ARCHITECTURAL METALS
LOS ANGELES ♦ DALLAS ♦ BALTIMORE

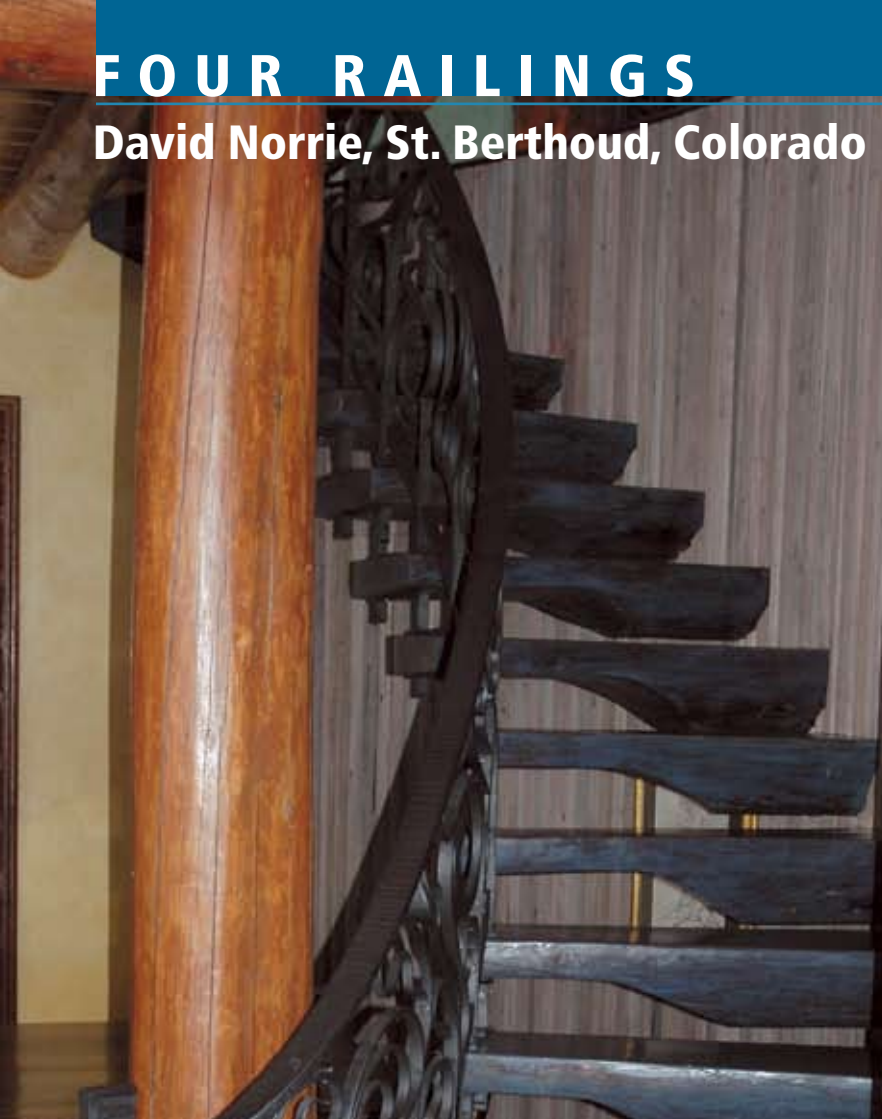
800.542.2379 • WWW.KINGMETALS.COM

Connecting artists with art buyers for over twenty years, through artist sourcebooks, catalogs, and website.

Visit www.guild.com or call 877-223-4600 to become a Guild artist or to request a free catalog.

FOUR RAILINGS

David Norrie, St. Berthoud, Colorado



David Norrie has been blacksmithing for over 30 years and is well renowned for his craftsmanship as well as his unique style. His primary focus is creating functional architectural art work ranging from sculpture to furniture to gates and railings.

Norrie is a self-taught blacksmith and his initial introduction to the craft began in 1973 with a three-year internship at the Black Creek Pioneer Village located outside of Toronto, Canada.

In 1976 Norrie opened his first studio in Tottenham, Ontario, located 30 minutes from Toronto. His primary goal at the time was to finesse the basic blacksmithing skills he had learned and spent the next two years doing historical ironwork related to museums and restoration.

Cont'd page 49



Detail shot



Main stair railing



Detail shot

THIS IS AN IRON RAILING, 60" LONG WITH THAT IS A FREE-FORM DESIGN BASED ON LAYERING STEEL BARS WITH OVERSIZED RIVETS SO THEY ARE USED AS A DECORATIVE DETAIL, NOT JUST TO HOLD STEEL TOGETHER.

9" section on the second floor, curved both horizontally and vertically. A tricky shape to abend

Detail shot



FOUR RAILINGS

David Norrie



Traditional iron railing with a bronze handrail and gilded leaves. 125" long

Railing on the second floor with a large oval opening to the lobby.



Iron and bronze balcony railing in a lawyer's office. The handrail is cherry.

David went to his first ABANA conference in 1978. While in New York, he realized for the first time that blacksmithing was an art form and rededicated himself to the profession.

From 1990 to 1992, David was on the Board of Directors of ABANA.

In 1995 he moved to Jackson, Wyoming, under an O1 United States Work Visa which is granted to those working in the arts and humanities fields. David is the first artist recognized by the United States government for "blacksmithing as his medium."

In 2001 Norrie relocated to Boulder, Colorado, and has continued to hold shop in his current studio space. He has three full-time employees.

David has demonstrated his blacksmithing skills and techniques all over the United States, Canada, and England. His work has been commissioned in varied locations throughout North America from West Palm Beach, Florida, to San Mateo, California, to Canada. ✨



Same railing from the other side.

Thangtong Gyalpo – The Iron Bridge Builder

by Daniel Kerem, Godfrey, ON, Canada



Tibetan metalwork, from left to right, silver censer, copper and silver mounted conch shell, copper and brass teapot.

The Tibetans were renowned metalworkers who developed not only a distinct national style but also objects and implements unique to a culture and way of life now unfortunately facing oblivion.

Because all metals were, relatively speaking, precious materials, generally most Tibetan work tends to be small in size with the chased, embossed, fretted, punched and inlaid ornamentation lavished profusely on all surfaces. Most ornamentation, usually symmetrically arranged, consists of religious motifs or patterns and symbols adapted from Indian and Chinese art, when Buddhism was introduced to Tibet in the 8th century. The overall effect is highly stylized and formal, with certain similarities to 17th century European Baroque, in terms of exuberance and expression.

Especially noteworthy was their ironwork, and the center for this trade was the principality of Derge in the province of Kham in eastern Tibet. Derge was made up of 25 districts with its capital, Derge Gonchen, which remained an independent kingdom until 1909 when the Chinese deposed the king and annexed the territory.

Although Derge as a whole was noted for its outstanding metalwork, which included copperware, silverwork and casting, it was the district of Horpo, with its central village of Derge Horpo, where the most ornate work was done and which specialized in damascening

and inlay and, most noteworthy, its flat and embossed fretwork.

Objects of extraordinary quality were made for centuries in Derge, the most elaborate and unusual being the swords and scabbards and the ritual objects employed in the extensive Buddhist liturgy, especially among the practitioners of Tantra. They preferred iron as a conductor as symbolized in the “Dorje” – the representation of lightning.

Saddles, stirrups, bridles, harness fittings, and teacup cases were also lavished with extraordinary detail -- including gilding and settings of coral, lapis and turquoise -- which were used by high-ranking government officials, monastic dignitaries, and the nobility in Lhasa.

Probably the most acclaimed Tibetan ironworker was the saint, Thangtong Gyalpo (1385–1464 A.D.) also known as Lama Chazampa (the iron bridge builder). He is attributed with the construction of 108 bridges in Tibet and Bhutan – an auspicious number, corresponding to the number of beads on the Buddhist rosary.

Thangtong Gyalpo was born in the Tsang district of Tibet and, according to tradition, he spoke the famous mantra “*Om mani padme hum,*” as soon as he was born. In Bhutan he constructed eight bridges of which only one survives to this day, at the village of Duksum, near Tashi Gang in eastern Bhutan.

The iron chains comprising the bridge are of two types: short ones covered with bamboo mats which form the walkway, and long chains

that form the handrails. The nine separate chains are joined by thick wire. The chains are secured by wedges into timbers in the floors of the two stone bridge houses on opposite banks of the stream.

THE MONASTERY

Another iron chain bridge built by Thangtong Gyalpo stood near the confluence of the Wang Chhu and the Paro Chhu at Chhuzom. Nearby there stands a monastery named Tamchhog Gompa, privately owned by the descendants of Thangtong Gyalpo. The red soil in the vicinity contains low-grade ore which once sustained smelting in this area. This

bridge was washed away in 1969, though several meters of its chains are preserved as a relic within the monastery. Visiting pilgrims are told that Thangtong Gyalpo’s powers were such that he welded the chain links together over his upper leg, requiring no anvil for the purpose.

THE BRIDGES

At Nyangodruk, between the Yarlung Valley and Lhasa, in Tibet, stood what may have been Thangtong Gyalpo’s longest bridge, which utilized five massive stone supports measuring up to 15 meters in diameter, with a span of between 150 to 250 meters.

For one of his most famous bridges which crossed the Tsangpo River at Chuwori in central Tibet, Thangtong Gyalpo went to western Bhutan between 1433 and 1444 where he gathered and smelted the necessary ore. Thangtong Gyalpo and 18 blacksmiths from five villages near Paro forged 7,000 chain links which were then transported in 1,400 loads across the border into Tibet.

OTHER PROJECTS

Thangtong Gyalpo’s achievements were numerous and varied. In addition to smelting and forging iron, he also cast images of Buddhist deities and built the “chorten” -shaped Dumtse Lhakhang in Paro, Bhutan, and constructed over 100 boat ferries. To finance his extensive bridge building it is said that he organized a touring operatic and dance troupe. He was an important “Terton” (text discoverer) of the Nyingma lin-

VISITING PILGRIMS ARE TOLD THAT THANGTONG GYALPO’S POWERS WERE SUCH THAT HE WELDED THE CHAIN LINKS TOGETHER OVER HIS UPPER LEG, REQUIRING NO ANVIL FOR THE PURPOSE.

eage and attained the title *great magician*, and he was also the founder of several monasteries and temples. However, his popularity among the common people even to this day rests on his composition of many occupational songs that are still sung in joint group activities such as building and threshing. But most importantly he is venerated as a saint, paralleling the Indian *Mahasiddhas* (those who attained enlightenment by pursuing a common profession).

Perhaps inspired by Thangtong Gyalpo, the Seventh Karmapa, Chodrak Gyatso,

1454-1506 AD, embarked on a program of iron bridge-building across Tibet.

The thanka paintings and statues of Thangtong Gyalpo depict him as a “Tantric Yogi” or “Rishi” (sage) with cascading hair, long beard and top knot, seated in the lotus position on a deerskin. In his left hand he holds the vase with the “Elixir of Life,” symbolizing his life-prolonging rituals (performed to this day in Bhutan), and in his right hand, his distinguishing attribute -- several links of iron chain.

Long live the saint’s memory, his songs and his bridges. ✨

Bhutanese Thangka painting of Thangtong Gyalpo, author’s collection



Copper and brass censer, brass bell-shaped altar vessel, silver and turquoise belt buckle, and brass chatelaine. Author’s collection

www.blacksmithsdepot.com
www.kayneandson.com



Off-Center Products
 The Lightweight Resilient Tongs
 Everyone Loves

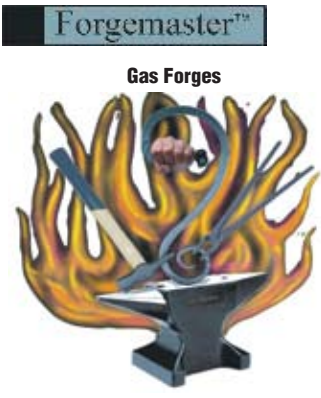


**Proudly Made
 in the
 U.S.A**

**Highest Quality Hammers, Tongs and all your
 Blacksmith Equipment Needs**



**FLY
 PRESS**



Gas Forges

Kayne and Son Custom Hardware, Inc.
 100 Daniel Ridge Road Candler NC 28715
 (828) 667-8868 or 665-1988 fax (828) 665-8303

Sculptural Pursuit

Creative Wisdom

Inspiration - Interviews - Artwork - Photography - Poetry



Spring 2005 Vol. 4 No. 2

US \$8 CAN \$11.50

BLUE EMBRACE
 John Bingham

TRIBUTE

By Ben Bradshaw, Alex Bealer Blacksmith Guild of Georgia

Floyd Daniel



If you've been blacksmithing for the past 30 years or so, sometime or another you have probably crossed paths with Floyd Daniel. He was one of the founding members of the Artist Blacksmiths' Association of North America (ABANA) and had been a participant in several blacksmith guilds across the country, either as an officer or a member. I had the privilege of visiting Mr. Floyd and his loving wife Mrs. Cordelia at their home in Madison, Georgia, in June of 2003.

Mr. Floyd lived in Madison all his life. He was raised from the age of five in the home in which he and Mrs. Cordelia lived. At the time, the home, built in 1923, was a part of his father's farm. This is where his interest in guns and blacksmithing began. Floyd's father had a blacksmith shop located on the farm. The shop was simple -- it consisted of a forge, anvil, drill press and a vise. Floyd often spent time in the shop with his father and later on his own. As time went by, his career distanced him from the farm life he once knew. He did not know until later in life how much that small blacksmith shop meant to him and how that early exposure to blacksmithing would change his life. Floyd worked as an office manager for a furniture company there in Madison, Georgia, and retired in 1975 after 19 years with the company. It was during the time of his management career that his interest in blacksmithing was rekindled.

In March of 1973 Celestine Sibley, a columnist for *The Atlanta Journal* wrote an article about a group of blacksmiths who were gathering in Westville, Georgia. Floyd decided to go and take part. It was there that Floyd developed friendships that have grown through the years. The following is a recollection by one of those friends, Dimitri Gerakaris of Canaan, New Hampshire, from that March meeting in Westville, Georgia:

"I do recall Bill Gichner saying Floyd was never one to be known as wasteful nor profligate in any manner. After serving chicken at one of the local functions, those who were beginning to line up for seconds were disabused of that notion as they saw Floyd quickly wrapping up the leftovers to go into his freezer for the next get-together."

Dimitri went on to say it made him feel even more thankful that fateful day in Lumpkin, when he proposed the formation of a group to be called the Artist Blacksmiths' Association of North America: "Floyd was quick to reach into the dark recesses of his pocket and extract a five-dollar bill into daylight to become a founding member - I attach a copy of the page from my original ABANA notebook recording that very deed. And in later years, when Floyd

purchased from an exhibition a cotton boll study of the gateway I made for the W.C. Bradley Corporation in Columbus, he did not put it on his wall, but most graciously donated it to the museum in Madison. This generosity is the true measure of the man I have enjoyed knowing these past thirty-four years."

Anyone who had ever entered Mr. Floyd's home learned quickly that it was more than a home; it was a museum of his life. There were hand-forged pieces of iron work from some of the most noted blacksmiths in the world; he could tell you the story behind each piece. On the wall of his bedroom was a plaque honoring him from the Ocmulgee Blacksmith Guild in Macon, Georgia; he was especially proud and honored to have received this award.

On one of my past visits to see Mr. Floyd, I informed him that I had made a motion to the Alex Bealer Blacksmith Guild of Georgia for a scholarship to be named in his honor, and that the motion had been seconded and approved. This past year I told him that I was awarded the Floyd Daniel Scholarship and he was amused.

A few things that I will always remember about Mr. Floyd were the way he acted when the Southeastern Blacksmith Conference was held in Madison; it was like a three-year old on Christmas morning. He loved to see his old friends, he loved the tailgating, and he loved it all. If you wanted to see him really get giddy, you should have seen him around his wife, Mrs. Cordelia.

Blacksmithing has lost one of its biggest enthusiasts. The only thing that makes it more bearable is to know that he and Mrs. Cordelia are now together again. ✨

BlacksmithSupply

Modern Tools for the Modern Blacksmith

Kevlar Gloves
 Tom Tongs
 Off Center Tongs
 Open/Close Face Swages
 Swedish Style Hammers
 German Style Hammers
 French Style Hammers
 NC Propane Forges
 Anvils
 Gilder's Paste Paint
 Center Finding Rules

Stanley Tape Measures
 Stainless Steel Rulers
 Transfer Punch Sets
 Letter/Number Punch Sets
 Flap Disk
 Cutoff Wheel
 Sanding/Grinding Disk
 Chisels
 Vise Grips
 Block Brushes
 Handle Brushes

Brass Brushes
 Candle Cups
 Fire Place Shovel Blanks
 Monkey Tool Sets
 Aviation Snips
 Silver Marking Pencils
 Lamp Parts
 Brass Sheet
 Safety Supplies
 Blacksmith Videos/DVD's
 ...and much more!

www.blacksmithsupply.com

P.O. Box 3766 Chester, VA 23836 1-877-387-6268

Check out our line of Traditional European Style Anvils at WWW.EUROANVILS.NET

SPARKY ABRASIVES CO.

Quality Industrial Supplies Since 1967!

- Bandsaw Blades
- Sanding Discs
- Air Tools
- Sanding Belts
- Grinding Wheels
- Flap Discs
- Flap Wheels
- Cut-off Wheels
- Cutting Tools
- Bench Wheels
- Wire Brushes

Call us for information or to place an order

PHONE: 800-328-4560

FAX: 800-553-7224

LOCAL: 763-535-2403 FAX: 763-535-2708

E-MAIL: zsparky@aol.com

Minneapolis, MN 55429

Penland Iron



Summer 2007 One- and two-week workshops

Forging, forming, sculpture, tool-making, and more, with instructors Brent Bailey, Vivian Beer, Jim Cooper, Chad Gunter, Marc Maiorana, Zack Noble, Peter Ross

Fall 2007 September 23 – November 16

Sculptural Connections with Joseph Burwell
Sculpture that uses metal connections as a key design element. Hot and cold connections, forging, fabricating, etc.

Visit www.penland.org for information or call for catalog.

Penland School of Crafts

A national center for craft education
in the North Carolina mountains
www.penland.org • 828-765-2359

The 6th Biennial Upper Midwest Regional Blacksmithing Conference

July 13 - 15, 2007

at Thresherman's Reunion Park • Pontiac, Illinois

Located 2 mi. north on Rt. 23 from intersection of Rt. 23 and I-55 (exit 201) or 4 mi. north of Pontiac on Rt. 23

Lorelei Sims



Forging botanical forms, she will provide insight and how to capture the visual essentials of flowers, leaves, tendril and other organic forms, visit her web site www.blacksmithingchic.com

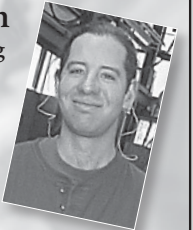
C.R. Becker (Bob)

Bob will be demonstrating use of traditional joinery in architectural and functional pieces of art. Bob will be building a sample grill at the conference. Visit his web site www.whitehorseforge.com



Chris Winterstein

"Forging Space: Developing Volume from line at the Anvil" using traditional forging techniques Chris will be demonstrating different ways to get volume from the line of steel. Visit his web site www.dirtcircusironworks.com



Beginning Blacksmith Class, Family Classes & Tours, Auction,

Open Forging, Local Demonstrators, Art Gallery, Iron in the Hat, Saturday Night Dinner,

Vendors, Tailgate Sales & "Trade Item!"

Information & Registration Form at www.umarbc.org

Contact: Chairmen Scott Springer, 309-208-0952

A great Conference that you won't want to miss!

Available on site: Primitive camping, some w/ electricity, Showers.

Sponsored by:

Indiana Blacksmithing Association, Illinois Valley Blacksmithing Association & Upper Midwest Blacksmith Association

UMBA & the UMRBC gratefully acknowledge the "Visiting Artist Grant" provided by ABANA for this Conference.

THE LAWLER LINE®

for the Fabricator and Forger
castings...forgings...furniture



Lawler Foundry Corporation

P O Box 320069 • Birmingham AL • 35232-0069



website: www.lawlerfoundry.com

Phone 800-624-9512



© LFC 2007 All Rights Reserved

Fax 205-595-0599

"Focusing On Low Tech Tools For The Blacksmith"



Old World Anvils

New Presses for Forging
Hot and Cold Stock
8 Sizes Available

Five Styles of Anvils
5 lbs. to 542 lbs.

www.oldworldanvils.com

Warehousing & ship-
ment of Old World Anvils
Merchandise is now
hand



Postville Blacksmith

N. 8126 Postville Road Blanchardville, WI 53516

Bob Bergman

608-527-2494 • fax 608-527-6908



Think SkipJack Press for blacksmithing books

New Edge of the Anvil, Andrews	\$25.00
Colonial Wrought Iron, Plummer	\$39.00
Golden Age of Ironwork, Magaziner	\$34.00
Gas Burners for Forges, Furnaces, and Kilns, Porter	\$19.95

to order books call BookMasters:

800.247.6553

or on the web at

www.bookmasters.com/skipjack



SkipJack Press

MAY 19 - 20

19th Annual Blacksmith Days hosted by the Blacksmith Guild of Central Maryland. At the Carroll County Farm Museum, Westminster, MD. On-site forging contest. For more information contact Ted McNett 717/646-9839 or e-mail: stonejugforge@earthlink.net.

JUNE 1 - 3

Indiana Blacksmithing Association's 27th Annual Conference in Tipton, IN. Demonstrators are blade-smith Steve Keeslar, Steve Williamson, and a power hammer demo by Clifton Ralph, Kurt Fehrenbach and Steve Parker. Contact John Zile 765/533-4153 or email: forger@hrtc.com.

JUNE 13 - 16

The Metal Museum in Memphis, Tennessee, will host The Society of North American Goldsmiths' (SNAG) annual conference. Presentations include Tom Joyce and Elizabeth Brim. Visit www.snagmetalsmith.org or e-mail E. Sundgrenz at conference@snagmetalsmith.org.

JUNE 16 - 17

"Building History," an exhibit of historic building techniques and materials. At The Ephrata Cloister, PA. The Cloister would like to invite Pennsylvania Artist Blacksmith Assn. members to participate in this 2-day event to demonstrate and display the art of blacksmithing. Members' work can be sold on commission at the museum store. For more information call Fred Eberly 717/733-9143. Or Michael Showalter e-mail: mishowalter@state.pa.us.

JUNE 30 - JULY 2

CanIron VI, the biennial Canadian Blacksmith Conference. Victoria, BC, Canada. Hosted by the Vancouver Island Blacksmiths Assn. Some of the demonstrators already lined up are: Tony Austin, Jake James, Renato Muskovic, Paul Thorne, among others. Visit www.caniron.ca or email Neil Gustafson, swedefiddle@shaw.ca or Dave Winestock, davewinestock@yahoo.com.

JUNE 30 - JULY 1

Western Reserve Artist Blacksmiths Association (WRABA) will be holding its first annual blacksmiths conference at historic Century Village in Burton, OH. Contact Ken Tucker 330/792-9722 or see web site: www.wraba.com.

JULY 13 - 15

Upper Midwest Regional Blacksmithing Conference at Thresherman's Reunion Park, Pontiac, IL. Demonstrators are Bob Becker, Lorelei Sims and Chris Winterstein. For more information go to web site: www.umrbc.org. See ad on page 55

JULY 26 - 29

BABA International Conference at Ironbridge in Shropshire, UK. Demonstrators are Francisco Gazitua, Uri Hofi, Jim Horrobin and Sergei Polubotko. Contact Elspeth Bennie via email: elspeth@ironhorse-studios.co.uk for more information.

AUGUST 1 - 5

Annual Rocky Mountain Smiths Conference at Colorado Rocky Mountain School, CO. Craig May 303/838-2619. E-mail: drgnfrglt@aol.com.

AUGUST 6 - 10

Masters Class held at Colorado Rocky Mountain School, CO. Call Craig May 303/838-2619. E-mail: drgnfrglt@aol.com.

AUGUST 17 - 19

Peter Ross Workshop. Meridian Forge, Eatonville, WA. Advanced Decorative Iron in the 18th Century English Style. Forge welding will be required. Ike Bay 503/645-2790 or Darryl Nelson 360/832-6280.

SEPTEMBER 9 - 15

Women's Welding Workshop & Retreat. Taos, NM. Spitfire Forge, Taos, NM. See web site for more information: www.spitfireforge.com.

OCTOBER 8 - 14

5th World Congress of Blacksmiths. Lille, Northern France. Experts and demonstrators from 42 countries. E-mail: ghislain@musee-depleinair.com. See web site: www.musee-depleinair.com.

OCTOBER 13 - 14

Appalachian Blacksmiths Association Annual Fall Conference. Cedar Lakes Park, Ripley, WV. Contact Dave Allen 304/624-7248 or e-mail: anvilwork@aol.com. See web site: www.appaltree.net/aba.

FOR SALE

- Horizontal bandsaw. Napier Model B-19; almost an antique. Needs a bit of TLC, but where else can you get a 10" x 10" bandsaw for \$250; or mount the vise assembly outboard and use the 13/1 gear reducer to turn it into a twisting machine. Bring a trailer; this is one solid machine. Mark Bokenkamp 419/994-3405.
- Wrought iron 1" x 1" x 6' bar. # 2 refined. These are salvaged fence pickets. I had numerous smiths test the stock (Ron Reil in Idaho, Jonathan Nedbor in the Hudson Valley, and Ken Schwarz at Williamsburg) all came back as "worked well." CWF (Williamsburg) will be using this iron soon. Current pricing (shipping/handling extra) 10-100 lbs \$1.75/lb, 100-1000 lbs \$1.50/lb, 1000 lbs and over \$1.25/lb. Reid Crosby, Greensburg, PA. 724-331-0723. E-mail: bethnreid@aol.com.
- 25-lb. Little Giant Power Hammer. Rebuilt and ready to go. Purchased in 2002, never used. Approx. 1000 lbs. \$4000 + shipping from Cape Cod OBO. Call Martha 508/221-5918. E-mail: mlorantos@yahoo.com.
- Old World Anvils offers new fly presses, new high-carbon anvils from the Czech Republic at 6 to 552 lbs., single or double horn, Pedinghaus anvils, new all-steel post vises, gas forges from NC Tool and Forgemaster, and a wide variety of hand tools, chisels and

sledges. Bob Bergman, 888/737-5714. Web site: www.oldworldanvils.com.

• RENAISSANCE Microcrystalline WAX POLISH. Amazing! Developed for the British Museum to protect armor, guns, knives, silver, gold, copper, fine wood, gold leaf and much more. Free of damaging acids. Buffs easily to a hard, transparent finish. 65 ml tin @ \$12.95 S&H \$1.75; 200 ml tin @ \$21.95 S&H \$2.75; 2.5 litre @ \$159.95. S&H \$7.85. Prepaid: Blue Moon Forge/Huntingdon, PA 16652. Checks/MC/VISA. E-mail: bluemoon@penn.com. Toll free: 866/627-6922.

BOOKS AND VIDEOS

• Peih Tool Company, Inc. offers over 600 books/videos related to blacksmithing. We have the tools you need to get your job done! "Same Day Shipping!" Camp Verde, AZ; www.peihtoolco.com; Tel: 928-554-0700, Toll Free (USA) 888-743-4866.

Available from Blue Moon Press:

- A BLACKSMITH'S CRAFT, The Legacy of Francis Whitaker, by George Dixon. A Compendium of Processes, Tools, Patterns and Tips. Hardback, 8" x 10", 157 pgs., 800 photos/drawings, ISBN 0-9707664-7-5. Prepaid \$42.50 + \$3.50 S&H.
- CHARLESTON IRONWORK, A Photographic Study, by Charles N. Bayless. Photographs listed by streets. Reprint, Hardback, 11" x 9", 208 pgs., 295 photographs, ISBN 0-9707664-8-3. Prepaid \$36.95 plus \$4.50 S&H.

• MOVING METAL, The Art of Chasing and Repousse, by Adolph Steines. Translation, Hardback, 8" x 10", 131 pgs., 218 photos/drawings, ISBN 0-9707664-9-1. Prepaid \$32.95 plus \$3.50 S&H.

• THE ABCs of BLACKSMITHING, Examples Step by Step, by Fridolin Wolf. Translation, Hardback, 8" x 10", 199 pgs., 532 photos/drawings, ISBN 0-9707664-5-9. Prepaid \$45.00 plus \$3.50 S&H.

• EARLY AMERICAN WROUGHT IRON, Three volumes in one, by Albert H. Sonn. Reprint, Hardback, 9" x 11", 765 pgs., over 3000 drawings, ISBN 0-9707664-6-7. Prepaid \$124.00 plus \$6.50 S&H.

BLUE MOON PRESS, Blue Moon Road, Huntingdon, Pa. 16652. (866-627-6922) Check, VISA/MC. books@bluemoonpress.org.

• Blacksmith videos and DVDs available on a wide variety of subjects including: Forged Animal Heads, Leaves & Flowers, Bugs & Birds, Tongs, Fly Presses, Knifemaking and now available: The Blacksmith Primer by Randy McDaniel. 1-877/866-3688. Web site: www.teachingtapes.net.

• "How to Rebuild a Nazel power hammer," a 1 1/2-hour tape and information. \$75 postpaid. Bob Bergman, 608/527-2494 or toll-free: 888/737-5714. See web site: www.oldworldanvils.com.

SERVICES

• Remote foot pedals, self-locking wedges, quick-change die conversions and more. Lander Tool and Die is your source for improved power hammer productivity and efficiency. Hammer-specific and custom applications. 209/296-6471.

OPPORTUNITIES

• The American College of the Building Arts in Charleston, SC is accepting applications for its forged architectural ironwork program. See the college website at www.buildingartscollege.us or contact Deborah Bowman at 877-283-5245.

• Architectural shop needs more help! If you have skills and some tools, you will be paid accordingly. Or we can train you. Call Steve 307/733-7668. ✪

CLASSIFIED POLICY

Ads are \$20 each; do not send check, you will be billed. Ads are limited to 35 words (six lines). Longer ads are \$5 per line. Please submit your classified ad, in writing, either by e-mail: rob@sebastianpublishing.com, by regular mail: Sebastian Publishing, P.O. Box 1849, Georgetown, CA 95634 or by fax: 530/333-2689.

RAT HOLE FORGE



BLACKSMITH ANVIL

Two Sizes
460 lbs - 1 1/4 Hardy
250 lbs - 1 1/8

Solid Cast Proprietary Tool Steel
Fifth Leg • Upsetting Block
Side Face

Call or Write 307.733.7668

Made in USA WWW.RATHOLEFORGE.COM 307.859.8827 fax

RAT HOLE FORGE • BOX 351 • DANIEL WY. 83115



Wrought Iron Machines

Made In Germany



SSB3 - Computerized Scroll Machine

CALL FOR A FREE DVD

Robert Rayson, US Representative
503.722.7700

www.usahebo.com

BAYSHORE METALS, INC.

P.O. Box 60202, San Francisco, CA 94116-2022

NO MINIMUM
For Fast Action Call
(415) 647-7881 or (800) 533-2483
Fax: **(415) 648-8788**
Hours - Mon-Fri 9AM - 4:30PM

HALF OVALS	HALF ROUNDS	TAPS
INCHES	INCHES	INCHES
3/4 x 3/4	3/4	3/4 x 3/4 x 1/4
1 x 1/4	1/2	1 x 1 x 1/4
1 1/2 x 1/2	3/4	1 1/4 x 1 1/4 x 1/4
1 1/2 x 1/2	1	1 1/2 x 1 1/2 x 1/4
1 1/2 x 1/2	1 1/4	1 1/2 x 1 1/2 x 1/4
1 1/2 x 1/2	1 1/2	1 1/2 x 1 1/2 x 3/8
2 x 1/4	1 3/4	2 x 2 x 3/8
2 1/2 x 1/4	2 1/4	2 x 2 x 1/2
	3	3 1/2 x 3 1/2 x 1/4
		3 1/2 x 3 1/2 x 3/4

ANDY WALLACE
STEVE REGNIER

A HERITAGE IN IRON

Routson, 11 3/4" x 9 1/2", 215 pgs, over 200 color photos. This beautifully done hardcover book features several gorgeous mountain homes and the ironwork in them. Also featured are the blacksmiths who did the work, including: Howard McCall, Glenn Gilmore, Bob Bergman, Mike "Smyth" Boone, Rod Pickett, Marty Moews, Warren Gibbs, and Linda Rosi. Great book with inspiring examples of ironwork.

B446 \$47.95

LIVES SHAPED BY STEEL

Zastrow, 11" X 8 1/2", 235 Pgs. Over 400 photos. This softcover book has the subtitle, "Celebrating East Coast Outdoor Metal Artists." Nancy Zastrow has done a great job of bringing together the works of over 40 well-known modern artists on the East Coast. Bound to be used as an idea and creative process for a long time.

B447 \$42.50

Note: Postage is \$3.00 for the first book and \$.75 for each additional.

The **BookSmith**™

NORM LARSON BOOKS
5426 E. HWY. 246 • LOMPOC, CA 93436
(805) 735-2095

EDUCATIONAL OPPORTUNITIES

MAY 18 - 21

Hand-Made Tools with Andy Dohner. New England School of Metalwork, Auburn, ME. 1-888/753-7502. E-mail: dglaser@newenglandschoolofmetalwork.com. Web site: www.newenglandschoolofmetalwork.com.

MAY 19 - 20

"Around the Bend" with Chris Winterstein. Prerequisite: Basic Blacksmithing I & II. National Ornamental Metal Museum, Memphis, TN. 1-877/881-2326 or 901/774-6380. See web site: www.metalmuseum.org.

MAY 20 - 25

The Joy of Blacksmithing with Judy Berger. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. Web site: www.folkschool.org.

MAY 25 - 27

Copper Roses and More with Rick Jay. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. Web site: www.folkschool.org.

JUNE 1 - 3

Beginning Blacksmithing with Gordon Williams. Bill Pieh Resource for Metalwork at Pieh Tool Company, Inc., Camp Verde, AZ. Ask about our school accommodations. 888/743-4866 or 928/554-0700. See web site: www.piehtoolco.com.

JUNE 1 - 3

Pretty & Functional Blacksmithing with John Pollins III. The Jacksonville Center for the Arts, Floyd, VA. Call 540/745-2784. E-mail: chris@jacksonvillecenter.org. See web site: www.jacksonvillecenter.org.

JUNE 2 - 3

Introduction to Iron Casting with Jim Buonaccorsi. National Ornamental Metal Museum, Memphis, TN.

1-877/881-2326 or 901/774-6380. See web site: www.metalmuseum.org.

JUNE 3 - 9

Beginning Blacksmithing Techniques with Howard Pohn. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. See web site: www.folkschool.org.

JUNE 3 - 15

Striking Things Together with Peter Ross. Haystack Mountain School of Crafts, Deer Isle, ME. 207/348-2306. E-mail: haystack@haystack-mtn.org. Web site: www.haystack-mtn.org.

JUNE 4 - 8

The Making of Tools with Elmer Roush. The Jacksonville Center for the Arts, Floyd, VA. Call 540/745-2784. E-mail: chris@jacksonvillecenter.org. See web site: www.jacksonvillecenter.org.

JUNE 4 - 8

Damascus Steel with Bill Fiorini. Appalachian Center for Craft, Smithville, TN. 615/597-6801. E-mail: craftcenter@tntech.edu. Web site: www.tntech.edu/craftcenter/

JUNE 8 - 12

Forged Laminated Blades with Muh-Tsyr Yee. New England School of Metalwork, Auburn, ME. 1-888/753-7502. E-mail: dglaser@newenglandschoolofmetalwork.com. Web site: www.newenglandschoolofmetalwork.com.

JUNE 10 - 16

Steel Repoussé - Chasing and Wonderful Colors with Mindy and Mark Gardner. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. See web site: www.folkschool.org.

JUNE 11 - 15

Iron for the Home and Garden with Paul Garrett. The Jacksonville Center for the Arts, Floyd, VA. Call 540/745-2784. E-mail: chris@jacksonvillecenter.org. See web site: www.jacksonvillecenter.org.

JUNE 11 - 15

Hot & Cold Forging with William Rogers. Appalachian Center for Craft, Smithville, TN. 615/597-6801. E-mail Gail Gentry at: ggentry@tntech.edu. See web site www.tntech.edu/craftcenter.

JUNE 15 - 19

Defining Space with Line and Shape with Doug Wilson. New England School of Metalwork, Auburn, ME. 1-888/753-7502. E-mail: dglaser@newenglandschoolofmetalwork.com. Web site: www.newenglandschoolofmetalwork.com.

JUNE 16 - 17

Blacksmithing Intro Weekend with Jessie Ward. The Jacksonville Center for the Arts, Floyd, VA. Call 540/745-2784. E-mail: chris@jacksonvillecenter.org. See web site: www.jacksonvillecenter.org.

JUNE 17 - 29

Sheet-Forming Basics with Hoss Haley. Haystack Mountain School of Crafts, Deer Isle, ME. 207/348-2306. E-mail: haystack@haystack-mtn.org. Web site: www.haystack-mtn.org.

JUNE 18 - 22

Joinery within Furniture with Jim Masterson. Appalachian Center for Craft, Smithville, TN. 615/597-6801. E-mail Gail Gentry at: ggentry@tntech.edu. See web site www.tntech.edu/craftcenter.

Forging an original
for 26 years.

Memphis, Tennessee www.metalmuseum.org 901-774-6380

LASER PRECISION CUTTING

NEW WATERJET! CUTS UP TO 4" THICK ALUMINUM, COPPER, BRASS, WOOD, PLASTIC...

ORNAMENTAL HARDWARE • CUSTOM METAL PARTS
ART OBJECTS • CUSTOM GRILLS • SIGNS AND LETTERS
CUSTOM BENDING AND FABRICATION

OUR JOB IS YOUR SUCCESS!

SEND OR FAX US A DRAWING, EMAIL A JPG, EPS, DXF OR TIF. IT'S THAT SIMPLE!

117 DAVID BIDDLE TRAIL, WEAVERVILLE, NC 28787
laserdesign@charter.net • FAX: 828-645-2128 TOLL FREE: 800-635-2596
www.laserprecisioncutting.com

Continued on page 60

LITTLE GIANT

PARTS—REPAIRS—INFORMATION

QUICK CHANGE DIE SYSTEM



Pictured: Lower Base with Flat Interchangeable Die Top

Also available for 25 and 50 LB:
Upper Die Base Drawing Die Top
Texturing Die Top Half Round Die Top
Rail Cap Die Top Half Collar Die Top
Full Collar Die Top

Photos of all dies are on our website:

www.LittleGiantHammer.com

or contact us at:

Little Giant
420 4th Corso
Nebraska City, Nebraska 68410
402.873.6603

Your source... for Improved Power Hammer Productivity & Efficiency

- Remote foot pedals
- Self-locking wedges
- Quick change die conversions
- More hammer-specific & custom applications.

LANDER TOOL & DIE
18023 Shake Ridge Rd.
Sutter Creek, CA 95685

209-296-6471

Colorado WaterJet Company

Custom panels for
gates, railings and fences

Steel, Aluminum, Stainless, Bronze,
Copper, Alloys, Other Materials

Precision cut using
CNC abrasive WaterJet

Cold cutting process
doesn't warp or distort,
no slag to clean up.

5186 Longs Peak Rd #F, Berthoud, CO 80513
Phone: 970-532-5404 Fax: 970-532-5405

www.coloradowaterjet.com
sales@coloradowaterjet.com

NEW ENGLAND SCHOOL OF METALWORK

WHEN ALL YOU WANT IS METALWORKING !!

2007 SUMMER SESSION

DAN TULL	SUSAN MADACSI
ANDY DOHNER	MARC MAIORANA
BOB COMPTON	DOUG WILSON
DERECK GLASER	JONATHAN NEDBOR
MUH-TYSR YEE	STEVE YUSKO
DON FOGG	JOHN LITTLE
CHARLEY ORLANDO	

SUMMER WORKSHOP REGISTRATION IS NOW OPEN!!

DON'T WAIT!!

REGISTER ONLINE OR CALL
www.newenglandschoolofmetalwork.com
1-888-753-7502

Membership isn't just ornamental.

NOMMA provides the right tools to grow your custom metal business.

Join NOMMA today!
The National Ornamental & Miscellaneous Metals Association
(888) 516-8585 • Fax (770) 288-2006
www.nomma.org

EDUCATIONAL OPPORTUNITIES

JUNE 18 – 22

Blacksmithing from the Beginning with David Tucciarone. The Jacksonville Center for the Arts, Floyd, VA. Call 540/745-2784. E-mail: chris@jacksonvillecenter.org. See web site: www.jacksonvillecenter.org.

JUNE 24 – 30

Dragons, Wizards & Horses with Steve Williamson. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. See web site: www.folkschool.org.

JUNE 25 - 29

Beginning Blacksmithing with Dale Wedig. Appalachian Center for Craft, Smithville, TN. 615/597-6801. E-mail Gail Gentry at: ggentry@tntech.edu. See web site www.tntech.edu/craftcenter.

JULY 1 – 4

Domestic Forgery with Ron Howard. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. See web site: www.folkschool.org.

JULY 1 – 6

Domestic Forgery with Ron Howard. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. Web site: www.folkschool.org.

JULY 6 – 8

Toolmaking with Gavin Harris. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. See web site: www.folkschool.org.

JULY 8 – 14

Design and Technique in Architectural Ironwork with Walt Hull. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. See web site: www.folkschool.org.

JULY 9 - 13

Small-Scale Forging with Andrew MacDonald. Appalachian Center for Craft, Smithville, TN. 615/597-6801. E-mail Gail Gentry at: ggentry@tntech.edu. See web site www.tntech.edu/craftcenter.

JULY 9 – 13

Beginning Blacksmithing Course with Dale Morse. The Jacksonville Center for the Arts, Floyd, VA. Call 540/745-2784. E-mail: chris@jacksonvillecenter.org. See web site: www.jacksonvillecenter.org.

JULY 13 – 17

Get a Grip with Jonathan Nedbor. New England School of Metalwork, Auburn, ME. 1-888/753-7502. See web site: www.newenglandchoolofmetalwork.com.

JULY 14 – 15

Intermediate Blacksmithing Joinery with Dale Morse. The Jacksonville Center for the Arts, Floyd, VA. Call 540/745-2784. E-mail: chris@jacksonvillecenter.org. See web site: www.jacksonvillecenter.org.

JULY 15 – 21

Beginning Blacksmithing with Judy Berger. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. See web site: www.folkschool.org.

JULY 16 - 20

Tool Making for the Blacksmith with Michael Saari. Appalachian Center for Craft, Smithville, TN. 615/597-6801. E-mail Gail Gentry at: ggentry@tntech.edu. See web site www.tntech.edu/craftcenter.

JULY 22 – 28

Novice Smith to Blacksmith with Tom McElfresh. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. See web site: www.folkschool.org.

JULY 23 - 27

Sculptural Steel with Steve Jordan. Appalachian Center for Craft, Smithville, TN. 615/597-6801. E-mail Gail Gentry at: ggentry@tntech.edu. See web site www.tntech.edu/craftcenter.

JULY 23 - 27

Class at Touchstone School for Crafts with Jymm Hoffman. Farmington, PA. 800/721-0177. E-mail: touchstone@hhs.net. See web site: www.touchstonecrafts.com.

JULY 27 – 31

Furniture Meets Joinery with Bob Compton. New England School of Metalwork, Auburn, ME. 1-888/753-7502. See web site: www.newenglandchoolofmetalwork.com.

JULY 29 – AUGUST 3

Early American Lighting Devices with Jerry Darnell. John C. Campbell Folk School, Brasstown, NC. 1-800/365-5724. See web site: www.folkschool.org.

JULY 30 – AUGUST 3

Traditional and Contemporary Lighting with Greg Price. The Jacksonville Center for the Arts, Floyd, VA. Call 540/745-2784. E-mail: chris@jacksonvillecenter.org. See web site: www.jacksonvillecenter.org. ✦



June 29—July 02, 2007
Victoria, B.C. Canada
Vancouver Island Blacksmiths Assoc
www.caniron.ca www.viblacksmiths.com

Canada's biennial blacksmithing conference will take place this year in the city of Victoria on beautiful Vancouver Island. It will be hosted by the **Vancouver Island Blacksmiths Association**.

Featured demonstrators include;
Richard Bent FWCB, Paul Thorne, Jake James, Daniel Orton, Joe Delisimunovic, Peter Fuller, Al Bakke, Renato Muskovic, Tony Austin, Doug Newell.

We also have a **hands-on** forging/teaching area, **repousse' teaching station**, demonstrations by the **Western Canadian Farriers Association** and the **Western Canadian Wheelwright Association**.

We have arranged for **hands-on craft classes** for spouse/family members, including basketry, felt making, mosaic art, quilting, fragrant wreath making, broom making, traditional metis beading and glass bead making.

Camping & R/V parking will be available on site, offsite dorm rooms at the Royal Roads University, b&b's and hotel/motel rooms close by.

Test your skills at the standards of **THE WORSHIPFUL COMPANY OF BLACKSMITHS!!** (est. 1352)
As part of CANIRON VI we will be hosting an ADJUDICATED GALLERY as well as a LIVE FORGING COMPETITION.

Check out the website <http://www.caniron.ca/> for more info



Rocky Mountain Smiths Conference
DVDs are on sale now • 1990-2006,
\$10.00 each or 3 for \$25.00.
A wealth of knowledge from premier Blacksmiths

Featuring:
Francis Whitaker
Scott Lankton
John Medwedeff
Bob Bergman
Mark Aspery
Corrina Mensoff
George Dixon
Doug Henrickson
and MANY MORE...

ROCKY MOUNTAIN SMITHS

Conference years 1990-present
List of Demonstrators are on:
www.rockymountainsmiths.org

Pay by: Check, Money Order or PayPal
 Allow 3-4 weeks delivery

PETERS VALLEY

CRAFT CENTER

Maegan Crowley
Glenn Gilmore
Joë Anderson
Vivian Beer
***John Rais**
J. A. Loose
Andy Dohner
Lucian Avery
Dick Sargent
Dan Radven

www.petersvalley.org

Workshops
 Summer Assistantships
 Artist Residency Program

Layton, NJ
 (973)948-5200

Artist BLACKSMITH

WELL-COMPOSED FEATURES

the quarterly voice of the British Artist Blacksmiths Association
 subscribe or become a member
www.babz.org.uk

PATINAS & ANTIQUING SOLUTIONS

BROWN ANTIQUE
 FOR SOLID & PLATED COPPER BRASS

BLACK ANTIQUE
 FOR BRASS & COPPER ALLOYS

RUSTY PATINAS
 FOR STEEL, BRASS & COPPER

BLACK ANTIQUE
 FOR TIN/LEAD & ZINC, SOLDERS, PEWTER, SILVER, NICKEL & FERROUS METALS

METALLIC COPPER & BRASS COATINGS (PAINTS)
 VERDE GREEN/TIFFANY GREEN
 OLD GREEN LOOK FOR COPPER AND BRASS

TURQUOISE BLUE
 FOR COPPER ALLOYS

BRIGHT DIPS
 REMOVES CORROSION/TARNISH

PEWTER LOOK
 FOR COPPER ALLOYS AND STEEL

TIN LOOK
 IMMERSION TIN FOR COPPER AND BRASS
 IMMERSION COPPER FOR STEEL

AIR DRY LACQUERS
7-SAMPLE FINISHING KIT \$50.00

TRIPLE-S CHEMICAL PRODUCTS, INC.
 3464 UNION PACIFIC AVE., LA., CA 90023
 TEL: (323) 261-7301 FAX: (323) 261-5567
 Toll Free: 1(800) 862-5958
www.patinas.com

AN OLD-FASHIONED BARN RAISING

At JC Campbell Folk School

By Paul Garrett, Brasstown, North Carolina

The John C. Campbell Folk School is proud to announce plans for an annex for the historic Francis Whitaker Blacksmith Shop. The old milking barn that is now the blacksmith studio at the school will have a new neighbor in 2008 when timber framers from all over gather at the school for an old-fashioned barn raising.

The school has known for some time that the blacksmithing program would eventually outgrow the Francis Whitaker shop -- dedicated to Francis in 1993 in recognition of his two decades of teaching and demonstrating at the school. We knew that there had to be a way to expand without losing the existing structure which symbolizes the legacy of the "Dean of American Blacksmiths," who devoted his life to keeping the art of blacksmithing alive in this country. The solution came in part with an offer from the International Timber Framers Guild, and member Charles Judd, a professional timber framer who teaches at the Folk School. His classes have built several small structures on the campus.

Seeing the need for the expansion as well, Charles made the relationship between the Guild and the Folk School possible. He wanted to see a larger timber-framed building constructed on the campus, one that would be a legacy for the school and to the craftspeople who made it. A few years in the making, the plan calls for a Guild rendezvous at the site in June 2008, when close to 80 timber framers will do a traditional barn raising, similar to those seen in Amish country. In preparation for the event, the Folk School will host Guild classes staged on the building site. The frame will then be stood up in sections known as "bents" with levers, ropes, pike poles, and plain old human effort.

An agreement was made between the two parties in a December meeting at the school that included Charles, Guild president Joel McCarty, School Director Jan Davidson, resident blacksmith Paul Garrett, and architect Don Ihrig. The timing was perfect, and the school was grateful for the offer from the Guild. The Guild only does a limited number of these events, and only for not-for-profit organizations like the JCCFS. The existing shop is functional, but there is a definite need to spread out a bit for comfort and safety's sake, giving students more room for larger projects, and accommodating some of the areas that we currently cannot.



Paul Garrett accepting first donation of \$1000 from ABANA member Lou Mueller.

The Location

The new addition will be located right behind the existing shop and will be connected via a short vestibule. The design will include a clerestory roof line, housing an air-conditioned classroom which will allow natural light to pass through into the spaces below; it will also have full handicap accessibility. The two existing

... SYMBOLIZES THE LEGACY OF THE "DEAN OF AMERICAN BLACKSMITHS," WHO DEVOTED HIS LIFE TO KEEPING THE ART OF BLACKSMITHING ALIVE IN THIS COUNTRY.

silos will frame a beautiful timbered entrance gable and house full restrooms and some storage. There will be a room for the school's growing library of books and publications, a center for technical, safety, and design information, and resources to aid students in finding organizations, as well as other smiths in their areas, and also help in locating scholarships. The size of the new building is tentatively at about 2,500 square feet.

Renovations

The old shop will receive extensive renovations to reverse decades of wear and damage,

and will be brought up to modern standards of comfort while retaining its historic charm. It will be completely rewired, re-plumbed, and fitted with a sprinkler system. It will have improved ventilation and energy-efficient windows. The plan will open up more room, and provide the space and equipment to accommodate an increasing variety of classes. At the same time, the Folk School is committed to respecting the values of traditional blacksmithing which have made the program the most popular of some 50 program areas offered, and have helped spur the tremendous growth in smithing across the country as well.

The project will most likely be accomplished in three main phases: the raising of the timber frame and roof, the finishing and occupying of the annex, and the subsequent renovation of the Francis Whitaker building.

Fundraising

Fundraising for the project officially began when long-time instructor Lou Mueller donated his honorarium for the class that he taught here last fall plus extra to make it an even \$1000. Clay Spencer, nationally known blacksmith and fixture at the school, also donated \$1000. Not to be outdone, Don Neuenschwander, a long-time student and friend of the Folk School

Artist's renderings of the new blacksmith shop annex.



from Indiana, donated \$5000! Donations have begun to come in as word of the new project gets out.

In 1925 a small rural community of individuals came together and offered whatever they could afford to build the Folk School. Today, more than 80 years later, the blacksmithing community gathers in the same spirit. It is strong and encompasses not only western North Carolina, but the entire country and beyond. It is resourceful, creative, and like the Folk School, dedicated to the spread of knowledge and education of blacksmithing. Already there are groups across the country planning fundraisers and auctions to help out with the effort. Any ideas or sources that you know of to help

out with donations and publicity will be greatly welcomed. Together our community can see that this goal is achieved.

Although the full architectural plans are not yet finalized, early estimates for the amount of capital needed to realize this project are at \$500,000. We have a long way to go but have confidence that the school, which has had a positive effect on so many lives, will be able to raise the amount needed to ensure the program's health well into the new century. Donations are currently being accepted and are held in a restricted, interest-bearing fund set up specifically for the project. No amount is too large or too small, and can include gifts of cash, stock, or materials. The Folk School is

a 501(c) (3) organization, so all contributions are tax deductible.

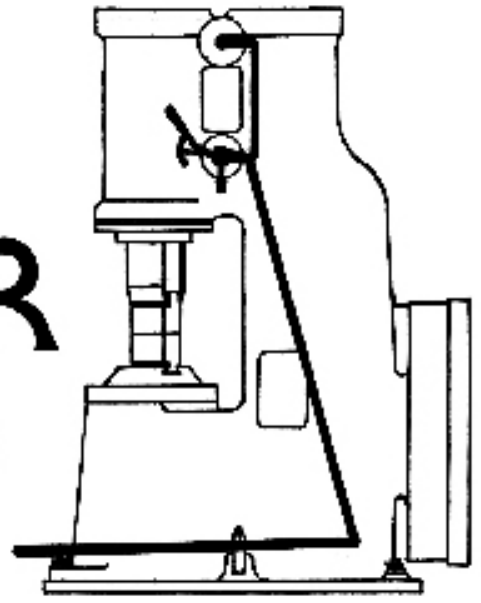
Donations of \$500 or more will be recognized with a plaque in the new building, and opportunities to name the new spaces will be developed as soon as plans are finalized.

Please contact Susi Hall, Development Manager, at susi@folkschool.org or at 828/837-2775 ext.118 to contribute or to discuss making a gift, and by all means contact me at pdg86@hotmail.com, or 828-835-8441 with ideas to assist with the project. Thanks, and happy forging. ✨

Paul Garrett, Resident Artist for the Blacksmithing Program, Brasstown, North Carolina.

ANYANG POWER HAMMERS

ANYANGUSA.COM
GRAHAM MFG. 888-897-1026



**OVER 50 YEARS
BUILDING QUALITY POWER HAMMERS.**

GOT BLU ?
Now there are two!

The Original **QC-110** Both include the original Uri Hofi QC die holder system.

\$4895 USD FOB

NEW QC-155

\$5895 USD FOB



Made in USA

Authorized Dealer

IR Ingersoll-Rand
Air Compressors

Big BLU Hammer Mfg. Co.
 3308 Frank Whisnant Rd., Morganton, NC
 Phone : 828-437-5348 - FAX: 828-437-9217
www.BigBluHammer.com

A CUT ABOVE DISTRIBUTING COMPANY	44
ARTISAN NORTH AMERICA.....	8
ATLAS METAL SALES.....	8
BAYSHORE METALS, INC.	57
BIG BLU HAMMER MFG CO	64
BLACKSMITH SUPPLY.....	52
THE BLACKSMITH'S JOURNAL.....	7
BLUE MOON PRESS.....	6
THE BOOKSMITH.....	57
BRITISH ARTIST-BLACKSMITHS ASSOCIATION (BABA)	61
CALGARY STAMPEDE	42
CANIRON VI	61
COLORADO WATER JET COMPANY	58
CRESCENT CITY IRON SUPPLY	11
GRAHAM MANUFACTURING.....	63
THE GUILD.....	45
INDUSTRIAL COVERAGE CORP	INSIDE BACK
JOHN C CAMPBELL FOLK SCHOOL.....	3
KAS DIRECT BUILDING & DECORATING SOURCE	5
KAYNE & SON CUSTOM HARDWARE	52
KING ARCHITECTURAL METALS	45
LANDER TOOL & DIE.....	58
LASER PRECISION CUTTING	59
LAWLER FOUNDRY CORPORATION	54
LITTLE GIANT	58
METAL MUSEUM, MEMPHIS.....	59
NC TOOL COMPANY	INSIDE FRONT COVER
NEW ENGLAND SCHOOL OF METALWORK	59
NIMBA ANVILS	41
NOMMA.....	59
OLD WORLD ANVILS.....	55
PENLAND SCHOOL OF CRAFTS.....	54
PETERS VALLEY CRAFT EDUCATION CENTER.....	60
PIEH TOOL COMPANY, INC.....	INSIDE FRONT COVER
RAT HOLE FORGE	56
ROCKY MOUNTAIN SMITHS	60
SCULPTURAL PURSUIT	52
SKIPJACK PRESS, INC	55
SPARKY ABRASIVES COMPANY	54
STRATFORD GATE SYSTEMS.....	56
STRIKER TOOL COMPANY	2,10
TEXAS METAL INDUSTRIES	4
TFS ANVILS.....	9
TOUCHSTONE CENTER FOR CRAFTS.....	7
TRIPLE S CHEMICAL PRODUCTS, INC	61
UPPER MIDWEST REGIONAL BLACKSMITHING CONFERENCE	55
VAN'S GUN BLUE.....	10



SAVINGS OF UP TO: **50%** PREMIUMS AS LOW AS: **\$250.⁰⁰**

NO DEPOSIT REQUIRED EASY MONTHLY PAYMENTS

INDUSTRIAL COVERAGE CORP.
 has hammered out a NEW & IMPROVED commercial insurance program that will deliver

- Broader Coverage
- Phone Quotes
- Specially Priced Coverage for

Hobbyists
 Part-time blacksmiths
 Full-time blacksmiths

www.industrialcoverage.com



CALL 800-242-9872 EXT. 115
 Ask for Michael J. Romeo