# The Anvil's Horn

A Publication of: The Arizona Artist Blacksmith Association



Issue No. 154

January, 2012







Demo: January 21

Visit the wacky world of Paul Dief's Blacksmith In a BOX

## **President's Message:**

Hi all!

Hope everyone had a safe and happy holiday season! It's a new year and it's time to start the forges aburning again!

This month's demo is going to be a bit out of the box, well it's at Paul Dief's new shop so for those of you who chose to make the journey to Cave Creek, it should prove interesting, as well as entertaining!

We had our annual Scholarship auction last October, we filled the pavilion at Sahauro Ranch with enthusiastic bidders as well as a few very hungry smiths and their wives! John Silvestre and Ivan Hill did the BBQing and everyone brought a dish to share. Great food by all! The auction was ton's of fun with a new auctioneer this year, Dave Hickson. I think everyone walked away with something from the raffle as there were plenty of give-a-ways! Thanks to all who helped to make this a huge success, again!

The November Demo gave Mo Hamburger a chance to show us all how he looks at and designs his meticulous creations in Iron! What a information packed day it was! Thanks for doing it at Grizzly Iron.

We will be having a meeting for Iron in the Desert in January at my shop, info provided elsewhere in the newsletter.

Hope this year is healthy and prosperous for everyone! Keep the Fires burning,

Rodger "GRIZZ" LaBrash



Grizz brought this hammered and riveted wrought iron bowl to Open Forge.

Many thanks to Grizz and Jason for hosting Open Forge every month.

Ed.

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## **Desert Rat Forge Demo** January 21, 2012

## Paul "Dief" Diefenderfer

Location: Desert Rat Forge

Gates open 8am. Demo starts at 9am

Registration: \$10 for members, \$15 for non-members

### Blacksmith in a Box:

Dief recently moved his shop to this beautiful, somewhat hidden desert location. His shop is based out of a 20ft cargo container. Everything is designed around the container to make his next move easier.

Dief's projects have ranged from small coat hooks, to a 95ft pedestrian bridge and just about everything in between.

Stuff to be demo'd include:

Fish swimming in kelp sculpture

Cool things you can do with old horseshoes

How to attach your iron work to rocks/cement (you'll never have heavy gates coming loose from cinder block walls again)

Nifty tricks for cabinet & door pulls

RR spike sun wall hanging

Jigs for power hammer and flypress

Lunch is on your own - Cave Creek has many great cool funky eateries Tailgaters welcome Bring Iron-In-the-Hat and Show and Tell items

### What? There's more!

Plan to spend the night. Dry camping is available. We'll sit around the fire and tell lies - I mean stories. Sunday morning we'll have a pancake breakfast followed by a hike in the Spur Cross Conservation Area to a beautiful riparian area.

## Directions to Desert Rat Forge 40218 N 78th St, Cave Creek

### From East Valley/Scottsdale:

Head north on Scottsdale Rd from the 101 Turn left at the 4-way stop at Cave Creek Rd The next 4-way stop is School House Rd

### From Phoenix:

Head north on Cave Creek Rd from the 101 The first 4-way stop you get to will be School House Rd. From the 4-way stop at Cave Creek Rd & School House Rd Head north on School House 1.5 miles to Highland Rd (if you get to the 4-way stop at Fleming Springs you gone a tad too far)

Turn right (east) on Highland

After about 1 mile the pavement ends. Keep going on the gravel road until the pavement starts again.

Turn right thru the stone walls down a paved driveway. You are there!

## November Demo Report: Mo Hamburger







Left: Mo brought this 2" wide anvil. The narrow width makes it easier to forge small. He also had a microscopic gas forge.

Above left Mo makes a lot of things on his treadle hammer (this one is Grizzly's).

Leave it to Mo to turn a mini LED flashlight into a desk lamp.

We think skater Clark (Martinek –hope you're freezing your butt off in ND) might have had some influence on the mini skate board.

Photos by Terry Porter and Dan Jennings









Left: Mo demonstrated several ways to make leg terminations. This roll up on the diamond is my favorite.



## **Open Forge Grizzly Iron: Vessels**

Vessels was the December Open Forge at Grizzly Iron.



Above: Ryan Niezwagg "Bama" It seems that there is a transfer case out of Bama's truck that he is determined to punish. This gear became a bowl (above center)





Above: Tyler Adams hammered out a bowl -we're not sure how he got his hand print in it.



Left: Keith's bowl



Right: Keith Jones used the fly press to form a bowl out of what looks like 1/4" plate with a "doughnut" formed from 1 1/2" round bar.

Left: Peter Jonasson jumped in with an interesting idea. He'll probably be working on it at the next Open Forge.

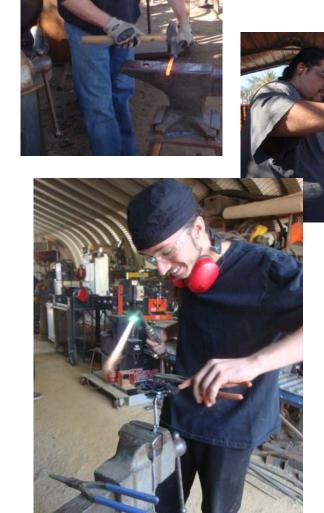


## Open Forge At Holy Hammer Iron Works By Harold Hilborn

We have had great turn outs this fall at Open Forge in Southern AZ. Several new people came, interested in blacksmithing and wanting to try their hand at it. This a excellent time for anyone to give it a try with no cost to see if it is a skill they would like to learn without having to tool up.

In our December open forge we had 12 people show up and all had something they wanted to make. There was a chisel made and tempered, a turning wrench, a handsome letter opener made by a first timer, a rose, a lizard and knife blanks. All four work stations were up and running with some doubled up.

Hope to see all of you again in January, and maybe some new and old faces too!





## **Old Pearce Heritage Days**

By, Harold Hilborn

On November 25 and 26 members of the Arizona Artist Blacksmith Association put on a demo at the historic blacksmith shop in Pearce , AZ .

Pearce was a prosperous mining town in the late 1800's. When gold and silver was discovered there it became a boom town overnight drawing people in from Bisbee and Tombstone. Buildings from these towns where torn down pulled over the mountains and rebuilt in Pearce. The whole town is now owned by Patty Burris and her husband, who also own the local pottery shop. They host this event annually on the two days following Thanksgiving. There was live entertainment, arts and crafts, food and displays of old engines and tractors by Power From The Past .

The forge was manned by, Sam Rivera, Bill Ganoe, Jim Blankenship, Terry McCain, Pat Barthle, Frank and Zack Shore and myself. Working at this forge was like taking a step back in time.

Thanks to all who came down to help out!









We got this a little late for the last issue, but I thought you'd enjoy seeing Dale and Bonnie's record of Gordon's demo. Ed



### **CALENDAR 2011**

January 7 Open Forge Open Forge January 7

Planning for Iron and Art January 12

January 21 Demo:

February 18 & 19 SWABA Regional Conference

February 26 **BOD** Meeting

March 17 Demo May 19 Demo July 7 Demo

July 18-21 **ABANA** Conference

Grizzly Iron Phoenix Tucson Holy Hammer Ironworks Grizzly Iron Phoenix Cave Creek Paul Dief's Mickey's Las Cruces, NM John Silvestre's Apache Junction **TBD** Bar-U-Bar Skull Valley

Jaime Escobedo's Payson Fairgrounds

Rapid City, SD

## Iron and Art in the Desert

March 24th from 3 till 9pm Date:

Location: The Pera Club, a venue built by SRP for their employee's and special events. 1 E. Continental Dr. This is across from the Phx. Zoo in Papago Park. Bordering on Phx and Tempe

Sponsors include Wells Fargo, SRP, APS, along with

many others. Cox Media will be providing media coverage.

This is our third annual Iron in the desert event, but this year there will be a Clay Artist joining us, that is the reason for the name change.

We will be having a meeting to discuss details and come up with an item to build to donate to their auction!

Date; Jan. 12, 2012 @ Grizzly Iron Inc. 6:30pm

This is a great event to help people in need but also to showcase some of your work as well as sell it! Contact; "GRIZZ" @ grizz@grizzlyiron.com or 602-716-9660

## **Board of Directors Meeting**

Feb 26, 2 pm at John Silverstre's Home/shop. 4879 N. Monterey Dr., Apache Junction 85120

This will be a BBQ potluck, John will be furnishing the Chicken or steak. Bring a dish to pass. Let "GRIZZ" know how many are attending as well as what meat you want.

Please submit agenda Items to Terry Porter by Febru-

All AABA members are invited to attend BOD meet-

### **Deadline: February 6** for the

March issue of the Anvil's Horn. Earlier would be greatly appreciated. Articles, photos, notices, and ads can be emailed to: Danshammer@cox.net or mailed to AABA 2522 W. Loughlin Dr. Chandler, AZ 85224

## **Open Forge: Tucson**

Holy Hammer Ironworks. First Saturdays through May. 8:00 am until it's done.

Questions? Give Harold a call at (520) 603-6723.

## **Open Forge: Phoenix**

Grizzly Iron is hosting their monthly open forge 8:00 am until around noon. Bama will show tong making on January

Grizzly Iron, Inc 1329 W Lincoln St., Phoenix, AZ 85007

### **Welcome New Members**

Stormy Rose Frank & Zack Shore David Bridenbaugh Aidan Benson Steve Miller

### **SWABA Conference**

February 18 & 19, 2012. In Las Cruces, New Mexico

Bob Bergman, owner of Postville Blacksmith Shop, will be the demonstrator. Bob established his business in 1969 and has trained with many notable smiths in America and Europe. Mr. Bergman will be demonstrating industrial tools and techniques as they apply to ornamental ironwork with a focus toward productivity, tool making "Blacksmith style", flat die forging and fly press work.

See Bob Bergman's Work at:

http://www.postvilleblacksmith.com/

For more info about the conference:

http://www.swaba-abanachapter.

org/

## **AABA Website: AZ-blacksmiths.org**

### **Mesa Arts Center Classes**

Classes can be searched for and registered for at: www.mesaartscenter.com or 480-644-6500

Blacksmithing: Making Damascus Steel for Knives or

Jewelry Section: CAF11BL004-01 Instructor: Frank Christensen 8 Weeks Tuesdays 6 pm- - 10 pm \$173 Resident, \$207 Non Resident

Blacksmithing: Skills of Hand-Forging Iron

Section: CAF11BL005-01

Instructor: Michael Sobrado 16 Weeks

Thursdays 6 pm –9 pm

\$241 Mesa Resident \$289 Mesa Non Resident Course will instruct the novice in the magic of handforging iron. Students will learn to use hammers and fire to shape steel into art.

Spring classes start in the middle of January The Mesa Art Center is located at 1 E. Main St., Mesa

## Yavapai College Metalsmithing

Chris Contos is now teaching Jewelry and Metalsmithing classes at Yavapai College. The focus is on non-ferrous metals, stone setting, surface textures and metal formation techniques.

Chris will offer three levels of coursework: beginning Jewelry class, Jewelry II, and Advanced Projects. These three credit classes are offered on Monday and Wednesday with many open lab hours during the week.

New classes start in January.

Feel free to contact Chris with any questions: christopher.contos@gmail.com

## Pieh Tool Educational Opportunities

**Beginner/Intermediate Blacksmithing Classes** with Gordon Williams

Classes for 2012: Jan. 27-29, 2012 Feb. 24-26, 2012 Apr. 13-15, 2012 May 18-20, 2012

\$455 per 30 hour class. All materials and equipment are provided.

Bill Pieh Resource for Metalwork at Pieh Tool in Camp Verde, Arizona. Contact: 928-554-0700 or www.piehtoolco.com

## MCC Blacksmithing & Welding

The MCC blacksmithing program is one of the best deals around - over 60 hours of instruction for just under \$450 and that includes material and propane! Saturday (Jaime Escobedo instructor) and evening classes (Dan Jennings instructor) are available. Blacksmithing is WLD103.

TIG, MIG, Arc, Gas, and Art classes are all available, as is certification in any of those welding methods at Mesa Community College, Southern and Dobson in Mesa.

If you try to register for any Welding Department classes on line, you might find all classes are closed (full). Contact Dan at danshammer@cox. net with the class number (time and days) of the class you'd like to take—I'll get an override number so you can sign up.

For more info go to: www.mesacc.edu

AABA New Mo	ember an	d Memb	ership Renev	wal Form
Name				
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Professional blacksmith		Farrier	Blade smith	
Your main blacksmithing in	terest			
Occupation or skill				
Please check one:			3.6.4	T D
Regular membership (\$30)_			Mail to:	Terry Porter 2310 E. Melrose St.
Family membership (\$35)				Gilbert, AZ 85297
Make Check Payable to	AABA			

## **2011 Auction Report**





Jason LaBrash did another superb job with this year's (maybe last year's by the time you read this) event. His best decision was in re-signing these grill masters. Smokin, John Silvervestre, Tim Wentworth and Ivan Hill cooked up perfect chicken and steaks.



Dave Hickson was pressed into service as auctioneer. Everyone had fun with Dave running the show..



The turnout was modest, but enough to raise \$2500 for AABA.



Nearly everyone got to take home at least one door prize. Many of which were provided by:

Sparky Abrasives Sculpt Nouveau King Architectural IMS Pieh Tool Skip Jack Press

Thanks to all those who donated door prizes and items auction items:

## **Auction Items** Photos by Wally Warnke



Dog Kluender copper belt buckle



Terry Port Wizard opener



Paul Dief Wrought iron bowl

Right: Ivan Hill meat turner

Below: Eli Kane and Kristen Loving Forged and etched knife and sheath





## **Auction Items continued**





Left: Maurice Hamburger vessels

Bottom left: Rodger LaBrash candle holder

Below: Fork by a now unknown blacksmith. Our apologies.

Bottom: Ron Kinyon blacksmith's clock













Upper left: Kurt Perry was awarded Best of Class in the Novice division

Above: Dan Jennings' table was voted Best of Class in the Advanced Division and also received the People's Choice Award.

Left: A pair of Peter Sevin hammers brought the most money.

Below: Peter Sevin bowl





## **Decorative Bolts & Rivets**

by Paul Mills, Victoria, Australia



Forge my own bolts and rivets? "Why would I want to do that?" you ask. While it's true that ordinary bolts and rivets are readily available, this utilitarian joinery can be used as decorative elements in your forge work.

Decorative bolts and rivets can add a special finishing touch to your handcrafted metalwork and set your work above all those around it. Surely a few nice decorative bolt heads would look better holding your hand-forged hinges onto the doors of St. Paul's Cathedral than a handful of hex bolts from the local hardware.

It is one of those things that look great, especially to the lay person, without being overly complex to achieve. All of the decorative effects seen here were created with just a few simple tools. The number of patterns and designs you can create is limited only by your mind and ability to make your own tools. As a smith, making the tools is something you can easily do, so why not try your hand at a few fancy bolts or rivets?

### Tools Required Heading Bolster

The one I have made is a springtype bolster for mounting in a vice. You can also use a simple piece of plate steel with holes drilled in it to fit the size stock for your bolts/rivets for use on the anvil. **Hint:** Drill the holes on the centerline of the block and then cut the block along the centerline.

#### Chisels and Punches

These are largely dependent on the



design you are trying to achieve: straight cut, half-round, eye punches, teardrop, fullers, etc. The size of the tools depends on the size of your work. You can easily get away with just a few tools if you work on the same scale each time. If your tools are made from good material and properly heat-treated, they will last you a lifetime, so look after them – keep the job hot and the tool cool!

The following can be said for all forging projects: You must have a clear plan of the job you are going to produce and the steps required to produce it before lighting your fire – at the very least a well thought out plan and design in your head but preferably a clearly drawn design on paper, preferably to scale.











Having a full-size drawing enables you to check your available tooling and to establish, well before the time comes to hit hot metal, if you need to make any more tools or jigs to produce the job.

Remember: Work smarter, not harder.





## **Creating Decorative Bolts & Rivets**

### Method 1



#### Square Heads

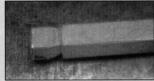
shown is 20mm square bar

**Note well:** All forging operations should be carried out at a high forging heat (yellow/orange).

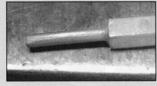
- Forge shoulder on the end of a bar using side-set or butcher tool. Be careful not to cut too deeply into tenon.
- Draw out tenon to form the bolt shank. Forge square, then round, then swage to size.
   Ensure the shank is same size along its entire length. Check the shank for size in your heading bolster.
- 3. Cut off enough material to form the bolt-head required. This can be done using the cut-off Hardy, hot-set, cut-off saw, etc. With care, you can create a pyramid effect on the head of the bolt using the hardy by carefully cutting from all four sides equally.
- Take a heat on the head section and drop the bolt into the heading bolster and forge to the desired thickness.
- Remove bolt and refine shape of head on anvil. Forge head to desired shape.
- 6. Repeat steps 4 and 5 until desired shape and size are achieved. Leave bolt to cool. (*Time to make another!*)
- Once cooled, lay out your design on the head of the bolt.













- 8. With the cooled bolt in the heading bolster, use the punches and chisels required for your design to mark the design on the bolt head, following your layout. This creates data marks that will enable you to follow your design accurately when the bolt-head is at forging temperature.
- 9. Take a heat on the bolt head only and drop it into the heading bolster. Follow your layout marks carefully, and chisel your design into the bolt head. Depending on the complexity of your design, this may take a number of heats. Remember to keep the job hot and your punches and chisels cool!
- 10. Once forging is complete, wire-brush the bolt and leave it to cool. Ensure there is minimal scale on the shank of the bolt as this will foul the thread-cutting dies when finishing your bolt. (*This is not as critical when making rivets.*)

















## **Creating Decorative Bolts & Rivets**

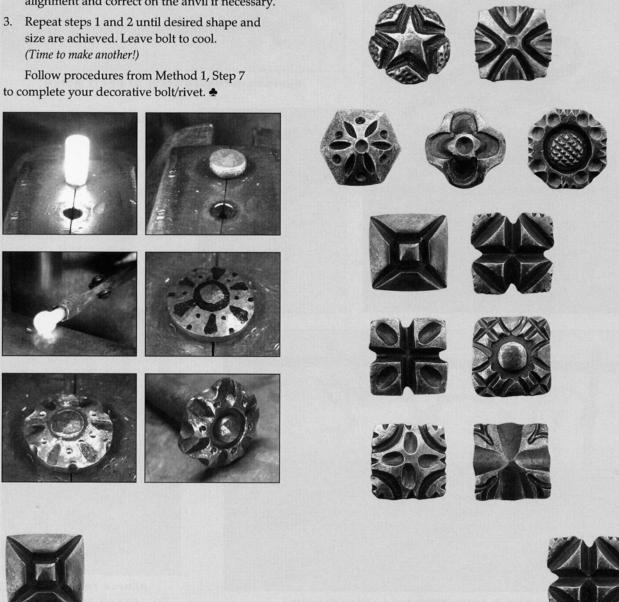


### Method 2

### **Round Heads**

(shown is 20mm round bar)

- 1. Take a short (40mm) heat on the end of the bar and drop into the heading bolster, leaving approximately 30mm protruding. This will give you a bolt head of about 25 x 25 x 5mm in size.
- 2. Forge the head down evenly, check for alignment and correct on the anvil if necessary.
- size are achieved. Leave bolt to cool. (Time to make another!)



## **Classifieds**

### Need Help?

Do you live in the Tucson area? Maybe in an apartment or condo and you don't have a smithy but want to blacksmith. Or maybe you would like some one on one lessons for blacksmithing or welding. Perhaps you are a professional smith or fabricator and don't have all the equipment you need yet. I am making Holy Hammer Ironworks available for all these needs on a floating scale per hour depending on your needs. If you are interested please give me (Harold Hilborn) a call at (520) 603-6723. Thanks!

Anvil stumps. Cut square, any length, Ponderosa. \$40 Contact Gordon Williams Classified ads are free to members and can be submitted by email to: danshammer@cox.net

S5 Tool Steel for Sale 1", 1 1/4" and 2" Round 12-14" Lengths. \$3 per pound 602-716-9660 Rodger or Jason

Wanted: Wanted-disc plows, low carbon RR spikes, small RR spikes, rototiller and snowblower tines, large horseshoes, wrought iron. Will pay bottom dollar! Ira 520-742-5274 treeira@hotmail.com

80 pound Kinyon Mark 11 power hammer. Contact Ron for info.

Ron also has air hammer pneumatic kits. Includes cylinder, valves, fittings and hose.
Ron Kinyon 602-568-8276

### Satin Shield Quarts

SS10 Clear Acrylic Sealant. Many professional blacksmiths swear by Satin Shield for indoor finishing. It is easy to apply—slop it on and use an air hose to blow away the excess or wipe it on with a soft rag. The resulting finish seals in the black carbon that is left from tumbling, seals out oxygen—preventing rust, and leaves a smooth, finish that darkens the metal with out hiding the texture. It holds up for many years in most indoor applications.

One quart ready - to - use for \$12.00 each. Doug Kluender 602-818-1230.

7 hp 3 phase Leeson motor \$100 Paul Bradsher 602-228-2426

## Sources

Rocky Mountain Smiths have videos available of their conference demonstrators. Most of these are high quality edited, multi-camera videos. For more info go to: www.rockymountainsmiths.org

### Bar U Bar Supply

Several 65 lb. & 85 lb. swage blocks for sale. Your source for anvils, post vises, and other new & used blacksmith tools. Barry Denton ph 928-442-3290 email: barubarranch@gmail.com website: www.barubar.com

IMS (formerly Capitol Metals). Full service supplier of Steel, Stainless, Brass, Aluminum, Copper. 5150 S. 48 ST. PHX. 602-454-1500

### Pieh Tool Company Inc.

Blacksmith Supplies, Coal, coke, & Kasenit #1 in 1# cans, 661 Howards Road Suite J Camp Verde, AZ 86322 888-743-4866 ,www.piehtoolco.com

### **Scottsdale Farrier Supply**

Mostly farrier supplies, but has hammers, tongs and other blacksmith goodies. Ph. 480-838- 4455 NW corner of Power and Williamsfield Rd. Mesa

MSC Industrial Supply Co. is a mail-order supplier of all kinds of industrial & metalworking supplies. You can get a 4500+ page catalog by calling 1-800-645-7270.

A Copper Rose Metal Art has Chasing / Repousse Pitch http://www.chasers-pitch.com Debra Montgomery P.O. Box 212 Dunlap, CA 93621 877-685-7467 toll free **Brent Bailey**. A blacksmith in California specializing in custom tools and ornamental forgings for artisans.

www.brentbaileyforge.com

### **Pacific Insulation Company**

Supplier of high temp insulating materials. Bricks, Kaowool and other refractories. 215 S. 14 St. Phoenix. 602-276-1361

#### Blue Moon Press, Ltd.

Metalwork books, some of which are only available through them. Bluemoonpress.org
Toll free ph. 866-627-6922.

### Vern Lewis Welding Supply,

Discount pricing for AABA members. Just tell them you're a n AABA member Various Valley locations 602-252-0341

Arizona Artist Blacksmith Association

Attn: Dan Jennings

2522 W. Loughlin Dr. Chandler, AZ 85224

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For membership info or address change, contact: Terry Porter 2310 E Melrose Street, Gilbert 85297 480-988-2070 trp555@prodigy.net



Jim Blankenship looks right at home at this century old forge in the historic gold mining town of Pearce, Arizona.

He looks like he might be imagining the experiences of some adventurous blacksmith who came here a century and a quarter ago.

Or he might be listening to the 100 year old gas engines and old tractors popping away outside.

Most likely he's trying to figure out how to get his 600+ horsepower, garden tractor to pull that sled another 5 feet.