



ART GRANTS SUBMISSION FORM 2013

Artwork Title

The Penrose Triangle

Artist Name

Blake Courier and Blake Courtney

Artist Bio

Blake Courtney is the pre-eminent fabricator and welder in the Boston burner community. Since '98, Blake's occupation has been custom fabrication and sound installation in the Boston area. Blake has attended every burn since '01 and has delivered critical components of several large scale installations including the Root Society DJ vestibule and dance cage, Let's Go Fly a Bike, and the Boston Village. His shop serves as the major base of operation for Automatic Subconscious, the Esplanade theme camp run out of Boston for the past 12 years.

Blake Courier creates math-inspired sculpture and interactive media, and has been attending Burning Man and helping organize the Boston burners since '08. Blake's contributions to the playa include the Automatic Subconscious non-geodesic dome, a medium scale zoetrope, the Kaos maze, and the Boston Village playground, and he has organized the layout of the Boston Village since '09.

(Yes, we have surprisingly similar names.)

1,000 character limit

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Budget Grand Total USD

\$16,500

See "Budget" section to calculate total

Web Image Attachments

At least one image of your concept is mandatory. This can be a drawing, sketch, photo, etc. The image should give the grant committee a good sense of what your art project will be. Your web images should not exceed 4MB in file size for any given image. Please make sure to include the name of your proposal in the name of the image!!

Link to a web page that lists all your images

If you have a web page that contains links to your images, then copy and paste the image url for your web page into the "Web link to your attachments page" box below. Only paste one link into the box. **Please DO NOT point us to a Flickr or Facebook account.** We download and print EACH image, so make sure they are easily accessible and downloadable and printable without a user name or password.

Web link to your attachments web page

Example: <http://www.mysite.com/myimages/myListofAttachmentLinks.html>

Link to individual web images - Please DO NOT link to Flickr accounts

Paste up to five links to specific images into the "web image link" form blanks below. Acceptable formats limited to JPG (JPEG), GIF, and TIF. Copy and paste your image links into the "web image link" boxes below. You are allowed to place a total of five links, or one for each box below. Please include the name of your proposal in the name of each of your images!!

Tip: Be sure to test that your image links work **before** pasting them into the blanks below.

Web Image Link 01

Example: http://www.mysite.com/myimages/MyGrantProposalName_Image01.jpg

Web Image Link 02

Web Image Link 03

Web Image Link 04

Web Image Link 05

Include any special notes about your images

The images are easily downloaded from Google Plus by choosing "Download Full Size" from the Options menu when you are viewing individual images. We have also attached the images to the email in case you have any difficulty downloading them.

Note: If you are unable to provide links to images hosted on websites, you may also attach image files to your email. The total combined file size of all your attached images should not exceed 4MB. Providing links to your online images is strongly preferred over attaching images to emails.

Project Overview

Philosophical Statement

Provide a brief statement about what the art means to you and what you wish to communicate to participants.

The Penrose triangle is a surprisingly pervasive cultural artifact. Perhaps the simplest way to create a three-dimensional illusion from a simple drawing of straight lines, it has been celebrated in the works of MC Escher, on postage stamps and logos, and a surprising number of tattoos. Those of us who daydreamed during middle school may well have doodled it on the covers of our notebooks, as something in the geometry seems to offer an escape from the rigidity of everyday existence. Its aesthetic simplicity confronts and challenges our innate ability to visualize and navigate space, helps define the boundary of what is and what is not, and perhaps even fosters our own understanding of the underlying nature of reality.

The goal of this project is to realize this beautiful shape as a 17-foot tall climbable sculpture that will delight and amuse Burning Man participants. We want to show the world that the impossible is possible. From afar, it will appear to be an illusion, but from up close it will be a beautiful structure to experience, suggesting nothing of its deceptive agenda.

In addition to seeing the illusion from a distance and enjoying and appreciating a sculptural form, there is a third aspect for the intellectually curious to experience: this particular realization of the Penrose triangle as a truss structure is surprisingly fundamental as a shape. Once one embarks on the journey of trying to create a symmetric 3D truss structure that produces the illusion, the geometry of all the beams becomes self-evident. Participants who figure out the magic trick will be rewarded with this remarkable understanding.

3,000 character limit

Physical Description

Share a brief physical description of the installation proposed -- what it looks like when a participant approaches it. If you are incorporating fire within your artwork, detail questions will be asked later in the Grant Submission Form.

The physical form of the piece forces dichotomies between illusion and reality, distance and proximity, and 2D and 3D.

Distant viewers along the proper line of sight should see a clear and unambiguous Penrose triangle, the primary contours of which will be blazingly visible at night. Ideally, the work will be placed between the Esplanade and the man on the extension of one of the minor radial roads so that anyone walking down the radial road or standing at the man will be well-positioned to see the illusion. Even from afar, the viewer should be able to see other participants somehow climbing on the impossible structure.

As the viewer approaches the sculpture, the illusion unravels. The arcs that scribed the seemingly straight lines start to reveal their more complex form, and the illusion becomes replaced with something more organic and complex. Anyone approaching from the side will also see an assortment of curves, illuminated lines and beams. It will feel like a postmodern twist on a conventional truss structure, knotted and chewy, yet elegant and highly-symmetrical. This interesting and engaging shape can be appreciated independently of the illusion.

Once viewers arrive at the piece, they will be greeted by a sturdy steel frame with beams at a decent separation for climbing both inside the trusses and outside of the piece. As the eye traces out the individual faces of the piece, the viewer may realize that the surface is actually a three-fold Möbius band, and able-bodied participants might be tempted to climb the entire structure in that order, arriving where they started after three circumnavigations.

3,500 character limit

Budget

Research your costs carefully and be as specific as possible. It is important to note Burning Man only partially funds art projects -- we rely on the artist having his/her community cover any gaps in funding. We help fund material and transportation costs, as well as some services like welding, etc. Do not list "contingency costs" as we do not cover expenses like artist fees, flights, or crew food. Fuel and materials should be included in your budget. A detailed budget should be entered in the table below. **All dollar amounts should be in U.S. dollars.**

If you need additional table rows, use the "add" button below the table. Your "Total Estimated Cost" field below will be calculated from the "Grand Total" field in the table. If you already have an online spreadsheet, then you may instead paste a link to it in the box below.

For items where tax should not be calculated, please deduct the tax percentage from the line item amount.

Budget Spreadsheets:

Please make sure that we do not need a user name and password to access your budget spreadsheet. We download and print the budget SO IT IS MANDATORY that it's formatted for easy printing and viewing. Please make sure, if you use several tabs, to have a budget summary sheet.

Web Link to Online Budget Spreadsheet 

Example: http://www.mysite.com/myOnlineSpreadsheet.xls

#	Item	Quantity	Cost	Total
1.	<input type="text"/>	1	<input type="text"/>	\$0.00
Grand Total				\$0.00

Add

Remove

Urban Planning for Art

Do you envision your artwork potentially being placed in an urban setting after the Burning Man Event?

Yes No

If you answered yes to the question above, please describe any changes or modifications you would want to make to the piece to make its placement possible.

We expect to find a permanent home for the piece after it returns from the playa, but we have not established that location. We think it would be ideally suited in a public or commercial location. Preparation should be minimal, but would perhaps include rust-proofing, pouring a proper concrete footer, and perhaps installing a lighting system appropriate for long-term maintenance.

In addition, we expect to bring the piece to our regional burn and to local arts festivals and maker events until it finds a more permanent home. Perhaps it could be mounted on a trailer and driven around town for a little while. Regardless, we fully expect for the work to live on far beyond this burn.

We don't expect this grant to cover any of these post-burn expenses, and we will use best efforts to maximize the number of people who ultimately enjoy the work.

1,500 character limit

Sound Component

Are there sound elements intrinsic to your piece? If so, please describe what they are, and their impact on participants or other surrounding art installations.

Please note we do not fund bands, performances, DJs, or amplified sound in art installations on the open playa.

We expect that the triangle will be mostly silent, but it might resonate in interesting ways when used percussively. If it ends up becoming some sort of hippie flip-flop marimba, that's cool, but it won't be designed as such.

1,500 character limit

Illumination

How will you illuminate your artwork?

Your art installation must be sufficiently illuminated at night, not only during the event but during the construction set up. This includes any rebar, guy wires and any other part of the installation that may cause someone to be seriously injured.

We would like to illuminate the piece three ways.

Strip lighting will trace out the lines of the illusion and will be bright enough to be seen from considerable distance. Ideally, it will be made out of individually addressable LEDs.

The piece itself will be powder coated or painted white with UV reactive pigments. At night, UV floodlights will cause the beams of the piece to subtly glow from a distance, and up-close it will be adequately illuminated without blinding visitors.

Safety lighting will be installed as required to prevent participants from accidentally encountering the piece and its infrastructure at night. It will be necessary to protect the power generation area, which will be placed a reasonable distance from the piece itself. The vertically cantilevered design of the structure will be stable without any exposed rebar or guy wires, mitigating the need for safety lighting on the structure itself. Depending on the reliability of our power source, we may need to add battery-powered backup lighting. Although we expect to be able to assemble the piece in a day, and we don't expect the disassembled pieces to be particularly hazardous, we will be prepared to light up the area at night before the event opens.

2,000 character limit

Interactivity

Interactivity is an essential aspect to the art of Burning Man. Describe how your concept is interactive - how will the citizens of Black Rock City interact with your art?

We think that the most valuable interactive component of the piece will be the playful geometry encouraging participants to approach and retreat from the model, exploring the dichotomy of its 2D and 3D forms, patterns, and symmetry.

The work is designed to encourage climbing and play, which in turn adds to the illusion for distant observers. No interactive sound or lighting is currently planned, but we may end up programming some interactivity into the lighting if budget and time allow.

2,000 character limit

Dimensions

What is the height, length and width of your project?

Height	16' 8"	Length	19' 1"	Width	8' 4"
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Materials

What materials will you be using to construct your piece (examples: wood, steel, rock)? Will you be using any recycled materials?

The bulk of the structure will be made from 1.5" steel pipe. Flanges will be made from steel sheet stock. Most of that material, as well as the fasteners, will need to be purchased new. We hope to reclaim material for the heavy pipe used for the footer and the wood for the footer itself, where we can be flexible with the dimensions. Lighting will also need to be purchased new.

1,500 character limit

Project Plan and Build Schedule

Add web link to online project overview:

If you have a digital project plan, please post a link to it here - IT IS MANDATORY that it's formatted for easy printing and viewing. Please make sure that we do not need a user name and password to access your project overview link.

Web link to project overview

Example: <http://www.mysite.com/myimages/myProjectOverview.xls>

Note: If you do not have a digital plan, you can describe the project plan on the subsequent page.

Start Build Date If awarded a grant, when would you begin your build? Mar 31, 2013

Do you have adequate crew to build, install, and clean-up your project already identified? Yes No, not yet

Support Crew Whether or not you have identified your support crew yet, describe all roles and skills you require to make your project a success. Let us know which roles have been filled.	Blake Courier: design, engineering, structural analysis, CAD drawings, strip lighting, controllers, fund-raising, BMorg contact, LNT Blake Courtney: prototyping, fabrication, procurement, facilities, logistics, power, flood lighting, assembly and disassembly Although we are capable of pulling off the entire project ourselves, we look forward to friends helping with: * Welding, drilling, painting, etc. * Light programming * Transport logistics on playa and off * Assembly and disassembly Blake Courtney's shop has 17' ceilings and will be the main fabrication site. We would benefit greatly from DPW's help trenching and hoisting, but we can devise a plan to do it without.
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1,000 character limit

Pre-Playa Construction Schedule

Stage	Start Date	End Date	Note
Finalize and optimize design based on sourcing and budget	1 Mar	31 Mar	Final design depends on how we are funded, what materials we can scavenge, and what we learn from the prototype.
Build and test prototype corner cube	15 Mar	31 Mar	
Create Jigs and fixtures	1 Apr	14 Apr	
Complete first arm with full truss and two corner cubes	15 Apr	15 May	
Complete structure	15 May	30 Jun	In time for Firefly, the regional burn we put on in Vermont
Completely wired with lighting	1 Jul	7 Aug	Shipping containers will prolly leave for the playa on 10 or 11 Aug.

On Playa Construction Schedule

Please describe the date you wish to arrive in Black Rock City and your planned construction schedule for on playa. Optionally, you may use the calendar web-link field below to link to a calendar, or project plan, if you have one prepared to share.

Stage	Start Date	End Date	Note
Shipping containers arrive on the playa	21 Aug	21 Aug	Typically, the containers arrive the Wednesday before
Transport and assembly	22 Aug	24 Aug	We expect that the entire installation, planned correctly, can be done in a day. We'll leave a few extra days just in case.
Trenching and footer burial	22 Aug	24 Aug	
Assemble on ground	22 Aug	24 Aug	
Hoist, fasten, and power	22 Aug	24 Aug	
Disassembly and LNT	2 Sep	2 Sep	Container trucks depart the playa on 3 Sep.

Web Link to Calendar or Project Plan

Tip: Be sure to test your included link before copying it into this form.

Example: http://www.mysite.com/myimages/MYPROPOSALNAME_CALENDAR.xls

Transportation to Playa

How many days are needed to transport to the playa?

The Boston burners have collectively organized intermodal shipping containers for many years. In fact, back when we only had two containers, they loaded and unloaded at Blake Courtney's shop. Their journey involves trucks and trains and takes about 10 days.

The critical dates for the project are when they arrive on playa and when they depart, which gives us plenty of time for assembly and disassembly.

500 character limit

LEAVE NO TRACE PLANNING

A performance deposit will be withheld from your grant until after the event. Several steps must be taken in order to receive your deposit:

A) You must check in at the ARTery.

B) Your artwork must be ready by sunrise on Sunday before the start of the event. You must Leave No Trace.

C) You must check out at the ARTery before leaving the playa. If your site is not clean, and/or if you do not complete the check in and checkout process, your deposit will be withheld.

A well thought out teardown, clean-up plan and schedule should be planned out before arriving on the playa. Please enter a brief description for how you are planning on leaving no trace below.

Leave No Trace Plan

The project is self-contained, comprising six main pieces and a two piece base. It is designed for easy transport and assembly. There will be no burning or flame effects that will require protecting the playa.

The piece will receive dusk and dawn moop sweeps and safety inspections at power down and power up.

We would prefer to use powder coating to painting, as the latter can flake off when subjected to the thermal stress of the playa and the mechanical stresses of being climbed on.

When we place the footer, we might need to sequester some playa by storing it in containers for the week. Once the footer is dug up and removed, we will need to carefully repack the playa into the hole we dug.

2,000 character limit

Artwork Utilizing Fire

Will you be utilizing fire within your artwork? Please read the following Flame Classification Definitions carefully and choose the category or categories that best describes the fire type your artwork utilizes.

- A.) **OPEN FIRE** is defined as non-pressurized flame, including setting fire to an art installation, large burn barrels, braziers, torches, assemblies of candles and/or other simple uses of fire. Open fire is not allowed on mutant vehicles.
- B.) **FLAME EFFECTS** are defined as all flames that are automated, switched, pressurized or having any action other than simply being lit on fire, as well as projects using propane or liquid fuels.
- C.) **PYROTECHNICS** refers to the art, craft and science of fireworks, which includes any explosives or projectiles. All pyrotechnic special effects material used in any art installation or performance must consist of consumer [1.4G Class C, UN0336] FIREWORKS or less.

(continued)

Open Fire

Do you plan to use candles, torches, fire barrels, raised containers or other items that may be engulfed in flames? Yes No

Open Fire Details.

OPEN FIRE is defined as non-pressurized flame, including setting fire to an art installation, large burn barrels, braziers, torches, assemblies of candles and/or other simple uses of fire. Open fire is not allowed on mutant vehicles.

Please describe in detail how you plan to incorporate open fire in your artwork. Explain whether it is a simple flame or setting your artwork on fire and how you will protect the playa from the burn.

3,500 character limit

Flame Effects Schematics/Details

Does your proposed artwork utilize flame effect and/or pressurized gas to produce flames? Yes No

FLAME EFFECTS are defined as all flames that are automated, switched, pressurized or having any action other than simply being lit on fire, as well as projects using propane or liquid fuels.

If your artwork utilizes Flame Effects, please describe the components of your system and how they relate to one another, fuel storage vessels, fuel delivery mechanisms, manual or remotely controlled valves, expansion or accumulator tanks, forced air blowers, manifolds, ignition systems, details of the flame head(s) (e.g., do they include venturis, etc.) and your fire-control system. Include detailed drawings of all aspects of your artwork.

3,500 character limit

Pyrotechnics

Does your proposed artwork utilize pyrotechnics?

Yes No

PYROTECHNICS refers to the art, craft and science of fireworks, which includes any explosives or projectiles. All pyrotechnic special effects material used in any art installation or performance must consist of consumer [1.4G Class C, UN0336] FIREWORKS or less.

Please describe in detail how you plan to incorporate Pyrotechnics / Special Effects Material into your artwork.

2,000 character limit

Submission Guidelines

SAVE THIS FORM to your computer's hard drive. You may send us your proposal by sending it as an attachment to artgrants@burningman.com. Your artwork title should be in the subject of your email. If we successfully receive your email you will automatically be sent a confirmation email within 24 hours.

Thank you for conceiving art for Burning Man! We Look forward to reading your proposal! AFTER SAVING THIS FORM, you may print it to paper for reference using the button below. USING THE PRINT BUTTON WILL NOT SAVE YOUR FORM.

[Print Form for My Own Reference Only](#)

THANK YOU FOR SUBMITTING YOUR PROPOSAL!!!!

Want to start over and wipe out all the data you've entered into this form? You may click the red button below to clear and delete all the information you entered into this form. Once you do so, you WILL NOT be able to recover your data.

NOTE : ALL YOUR DATA WILL BE LOST!

[DELETE ALL MY INFORMATION AND RESET THIS FORM](#)