

The Quixotic Windmill Burn
Grant Proposal for Burning Man 2005

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Christopher Konkel's -- Introduction to the Windmill Burn

I miss the old days. The Fabled Old Days - when they had drive-by shooting ranges. Anarchy. Hard-core craziness. There just isn't enough any more. This was our premise. Saturday morning, hardened now by more than a week on playa. Our camp was a tattered skeleton of what it had once been. Something in wind shredding across us, shredding our comfort zone, tearing it apart one piece at a time, had reminded us that the playa wasn't a safe-haven from the default world, the playa was a challenge. Maybe.

Maybe it was something else, maybe that we had come together from across the span of America, and without planning, without intention, the day most of us met for the first time, decided to create a communal space - a space created organically, and now evolved to it's niche. The kitchen, the commons, the shade, these shared spaces - a week ago so solid, now gave before anything stronger than a light breeze. Our whole camp shifted and bent and yielded. Perfectly evolved to survive windstorms. We had done this, with no time to waste, watched our home destroyed, and yet, somehow, in chaos, held it all together. We were experts now in destruction and survival.

For whatever reason, though, we all agreed. Not enough of the Elemental. Not enough 'Death Guild' we said. Not enough Anarchy. We need to build something and just blow it up. Fire. Explosions. Insanity. A tower and just burn it down. Eric thinks I said it first. I think he did. No one else remembers who did. A windmill. A Giant pastoral windmill. And then we charge it with flaming lances till it catches and burns to the ground. We could build three of them. Giant windmills, and little people charging them like cavaliers. Three Giants. The monsters of our minds, just waiting for a champion. Whoever actually manages set the whole thing off is the winner, we could carry him around on our shoulders. Brilliance. We all laughed. The next day the idea had percolated, sunk in. We had ideas now. Plausibilities. Monsters birthing in our minds. We agreed to make them real.

Quixotic Windmill Project – Detailed by Eric Miller

A. A detailed description, including dimensions, materials, interactivity, content and physical impact. Please tell us what it means to you and what you're trying to communicate to participants. If it will burn, tell us what kind of playa protection you will provide, and what type of burn perimeter you'll have.

Who we are (at this point):

Myself (Eric Miller – Detroit, Michigan) and Christopher Konkel (Seattle, Washington) came up with the idea for the windmills in the middle of the giant windstorm that hit the playa last year. Then we thought it would be beautiful to be able to slay these windmills with fiery lances and release everything those giants represent to everyone who comes in contact with them.

The other key players (all from Detroit – except Chassy who's now in NYC) are Ben Flaster, Christopher Herdt, Roxanne Chang, and Chassy Cleland who along with myself and several other people formed the PoTSal Delivery Theme Camp at 9:00 Plaza two years. Last year we joined the Dead Letter Truck group from Seattle which is how I met Christopher Konkel.

This project is aided and supported (by some of the members who are going to help work on our project, but more importantly aid in technical assistance) by our Michigan Regional Rep Cooky (Cynthia Jones) and several members of the Detroit Ubercarney (previously Roaster coaster, this year Safety Town) camp as well as other members of the Michigan Burning Man community.

We have about a dozen people besides the core of the group mentioned above that are planning to go to burning man and have offered to work on our project. Of these I realistically, because of how things work out on the playa, expect about six to be available for the set up and break down. However there are larger murmurs of interest beyond what I stated above in Michigan and Christopher hasn't even begun to recruit help in Seattle though he plans to start that very soon.

Like Chris' introduction stated our plan is to build three 20' tall windmills representing the three windmills that were "slain" by Don Quixote in the novel that Cervantes wrote exactly 400 years ago this year. (Nice how that worked out, huh? The 400th anniversary of the novel and this year's theme matching up so nicely?)

The frames of the windmills are well planned out as you can see by the diagrams accompanying this proposal.

Prototypes

We have already quickly and organically built a skeletal prototype windmill that was burnt on New Years Eve in Ben Flaster's yard. From this experience we were able to redesign the plans to send out for this proposal.

From the plans we sent you we plan to build at least two more _ scale model prototypes late in March (once the weather warms up a bit) to test not just how the structure and the frames work, but also to look into the ascetics and the interactive elements that I will mention in a moment.

Ascetically our current plan is to use colored burlap stretched across the inside frame on the windmill for the walls. There will be small cuts in the burlap to allow wind to pass through. If we find that burlap might not stand up under heavy winds (we'll investigate this one our prototypes this March) we have the back up plan of finding scrap wood to create a patchwork covering for the outer walls.

The Turrets

Our plans are for the tops (turrets) of the windmills to be able to rotate slowly with the wind in the traditional Dutch windmill fashion. The idea is to have the top of the octagonal base of the windmill covered in plywood "floor" that is supported by a couple 2x4's. The frame of the octagonal base will be built out of 2x4's. The octagon base will be staked to the ground from it's mid-point at 6' in height by 4 cables attached to rebar in the ground. This is well below the reach of the spinning sails that only reach down to 7' above the ground at their lowest point.

The turret that supports the sails will be made out of 2x3's which are still structurally sound but lighter than 2x4's. The turret will be attached to the base by a piece of steal pipe and will rotate on the "floor" of the octagonal base on 6 solid iron casters in a circle around the axel.

The Sails

The sails will be made out of four 7' long 2x2 (this can easily be adjusted to 6' if we find we need to for more ground clearance or structural stability). Attached to these masts will be three cross bars visible in the blue prints and renderings that will support stretched burlap that will act as sails to catch the wind.

Generating Electricity

An ambitious side project of Ben Flaster's (who is an electrical engineer) is to create generators to house in each of the turrets that will generate power from the wind and light LED's along the mast of the sails and possibly in the base as well. Since these plans have not been researched to the level you have asked for in this proposal we do not expect funding for it based off of this grant proposal. The structure of the turret house has been

designed to fit the possibility of this generator and the wiring needed to light the sails and the base.

Interactivity

While we don't want to explicitly restate the story of Don Quixote anywhere on or around the art work we do want to have a little stand outside of the windmills where we can have people draw and write on postcards and scrap pieces of wood their personal, self created demons, giants, and monsters that they would like slain. Much of the problems we create in life are of our own design. Sometimes we create them because of fears and pain inside of us. Sometimes we create them just for something to do. Regardless there is always a sense of pleasure and release when these creatures are conquered. These windmills are to signify all those thing in our mind that we create and fight against, all of those things that are painful, illusory, and need to be released. All those things that we set for ourselves to triumph over.

Based on the concept for the PoTSal boxes we used for the PoTSal camp we will have a post with permanent markers attached where pieces of card a securely attached but can be pulled off and written or drawn on. These cards (or someone's own pre-written letters or drawing) can be placed in a secure wind proof box. In addition to the box for letter we will have two crates, one of scrap wood left over from construction that can be written on, and anther to put the finished pieces into. When the windmills are burned the letters and pieces of wood will be placed into the windmills and burnt down and destroyed.

A second idea that is not yet fully formed is that Christopher Konkel would like to have people be able to enter the windmill and see inside their personal monsters. They can enter though a trellis that makes extra sure to protect them from the blades over head (in our original design the blades are designed to rotate with 7' of clearance above the ground, if we use this idea we might raise that to 8'). Inside of each windmill will be representations of three common monsters that we wrestle with daily. Culture and Society, Religion and Science, and our own Neurosis and Fears. We will look into the practicality of this idea when we build the _ size prototypes in the spring.

No matter what we will have the aspect where people can write and draw their fears to be burnt when the windmill goes up.

Pre-Construction and Construction

If order for things to go as smoothly as possible on the playa we believe that complete preparation and testing off playa is key.

Ben Flaster built our first, concept based prototype which we burned on New Years Eve. This allowed us to see that our concept for a moving turret system would work. It let us know that the weight of the turrets would be an issue and we decided to use lighter wood for the turret than in the base. It also made us realize that we would need to have a design that allowed for ease of construction out on the playa, not just ascetics.

We plan to build to more _ scale prototypes this spring that we will burn at a Michigan regional event, possibly at the dojo where our local fire performers practice, in not there then once again in Ben's back yard. We will make this an inclusive event to create greater local interest in Burning Man as well as a way to engage volunteers and donations for the larger windmill project.

Besides the motives of gaining support and the joy of burning things down we hope to achieve several things with these prototypes.

We plan to explore the best ways to rig the internal structure of the burn. We want to do this to insure the safety of the lancers who will be setting the fire; to insure the burn happens in the most interesting way possible; and we want to make sure that the larger model will burn in such a way as to insure that we avoid and burn scars on the playa. Ideally we want the upper turret section to burn out quickly and then the base to collapse in on itself soon afterward.

Another reason that we want to create these prototypes is to make sure that the systems we have in place to secure the windmills against the wind will do just that.

Finally these prototypes will allow us to refine the aesthetic and interactive aspect of the windmills. We have been most focused on the functional aspects of these windmills so that we could get this proposal out to you. This will be our chance to make sure that the windmills have the best possible visual and symbolic impact.

Once the prototypes have burned we will alter our plans and begin to build the actual windmills that we plan to take out to the playa. Using Ben Flaster's house as a staging ground we will pre-cut the wood for each windmill. Then is a series of weekend parties we will assemble the skeleton (no burlap or walls) each of the windmills to make sure that they fit together as they should.

Once a windmill is completed we will admire it's beauty.

After that and a few beers we will then take apart the base leaving the side wall section intact so that they can be raised more easily on the playa (if we find that this takes up too much room we will completely disassemble them.) We are really hoping to leave the turret boxes as one piece, minus their roofs, for transportation as they are the most complex structures we are building. Parts will be numbered and color coded with water based paint or stapled on colored labels to aid in assembly on the playa (basically making sure that we use all non toxic materials for safety and environmental protection when the project is finally burnt).

The Burn

Three groups of people, all who know fire handling and fire safety (both Christopher and I spin fire and we have access to the expertise of fire spinning groups and members at Burning Man.) Will have long 8' lances with wicks one the then. In groups of three we will, in a controlled and pre practiced manner (no lances will be thrown, only pushed and the performers will be in control of the flame at all times) charge each of the windmills.

Inside will be white gas soaked rags that will travel up into the turrets of the windmills and focus the blaze high off the ground. Based on our _ size prototypes that we design in March we will set it up so that the flames work their way down the structure after the turrets have a chance to expend a large part of their energy before the fire works it's way down to the burn shield. The mementos that people have left to be burned with the windmills will be places throughout the turret and bases of each of the windmills to help it burn.

Each of the windmills will be placed on a 12x12 structure of 2x4's covered in OBC plywood and covered in a sheet metal covering that is in turn covered in wet sand (wet to keep it in place in the wind). These structures can be placed on bricks to raise them off of the playa. We assume that the burn safety team at Burning Man will advise us as how to best tweak our design for maximal effectiveness.

We request ranger support for crowd control the burns in addition to our own crowd control team – we should have eight fire safeties using duvatyne, moving with us from burn to burn. Additionally we will have 2 or 3 fire safeties with fire extinguishers. Once again we are open to any other suggestions to help maintain safety.

Clean up

After the burns.

The main burn debris and sand will be shoveled off the burn platform and into garbage cans.

The sheet metal will be pulled off and placed onto the floor of Ben Flaster's Trailer.

The wooden frame of the burn platform structures will be burnt across the playa in designated burn platforms.

All remaining post-burn structural pieces will be collected by hand (using gloves) and loaded metal garbage cans.

Shovels will be used to gather smaller ash and debris into wheelbarrows, to be bagged and loaded into garbage cans.

Nails and screws that might be outside the main burn area will be collected using large magnets.

A visual small item search will then be conducted, repeatedly scouring the burn area for any remaining foreign objects.

Ash and blackened top-playa will be swept up.

Rakes, shovels and spades will be used to scrape and scour the playa (as non-destructively as possible), repeatedly until all trace of the burn is gone.

We will have the key windmill group, anyone accepted to the lance teams, and all other members who have volunteered to do so go through the process of the after burn clean up mentioned above.

The after burn clean up material (mostly in metal garbage cans) will be loaded onto the trailer that Ben Flaster used to bring out the lumber for the base of the windmills.

B. An itemized budget which includes material costs, transportation of materials to and from the playa, equipment rental, and expendables (fuel, water) etc. Please be sure to total your budget.

Lumber and Supplies:

Lumber (Per Windmill – cost for 3 windmills totaled at the bottom)

Scrap will be incorporated into design or available for interactivity and used to fuel burn.

Turret Frame Outer –

Top and Bottom Squares – eight 6’ lengths of 2x3s	= \$17.60	eight 8’ 2x3s
Support Posts – four 3’ lengths of 2x3s	= scrap	scrap
Roof Supports – four 2’ lengths of 1x4s	= \$ 4.00	two 8’ 1x4s
Roof – two 6’x4’ _ sanded pine plywood	= \$26.00	two 4x8 _ ply
Total for one windmill:	= <u>47.60</u>	

Turret House Fin and Sail Support / Coaster System –

Sail axel support – six 2’ lengths of 2x3	=\$4.40	two 8’ 2x3s
Top & bottom cross support – four 6’ lengths 2x3	=\$8.80	four 8’2x3s
Bottom cross stabilizers – two 3’ lengths of 2x4	=scrap	
All Iron Coasters – six	=\$36	
7’ Steal Sail Axel --	= \$24	
Iron Pipe Turret Axel and caps	= \$6	

Total for one windmill: = \$79.20

Fins and Sails—

Top fin post – one 5' 2x2s	=\$2.00	One 8' 2x2
Bottom fin post – one 5' 2x2s	=\$2.00	One 8' 2x2
Sail Masts – 4 7' 2x2s	=\$8.00	four 8' 2x2s
Axel attachment assembly	= scrap	scrap
Sail attachment posts – twelve 1 _'	= \$16	

Total for one windmill: =\$28.00

Octagonal Base –

Base Cross Supports – eight 5' lengths of 2x4	=\$18.00	four 12' 2x4s
Top Cross Supports – eight 2 _' lengths of 2x4	=\$9.00	two 12' 2x4s
Vertical Support Beams – sixteen 12' lengths of 2x4	=\$72.00	sixteen 12 2x4
Cross beams for turret support – two 6' 2x4	=\$4.50	One 12'2x4
Plywood top – 5/8 plywood 7x7' cut octog	=\$40	two 4x8 5/8 ply

Total for one windmill: =\$143.50

Burn Shield –

Frame nine 12' 2x4s	= \$40.50	nine 12' 2x4
Plywood top – 4 _ 5/8" plywood	= \$95.00	4 _ 4x8 ply
Tin sheet to cover top – estimate of cost	= \$120.00	
Sand covering – 6 bags	=\$12.00	

Total for one windmill: =\$267.50

Miscelanous –

Burlap – 30 yards	= \$60	
Screws, nuts and bolts, washers	= \$30	
Glow stick Lighting / Reflectors / Flags	= \$60	

Total for one windmill: =\$150.00

Grand Total for one windmill = \$715.30

Grand Total for three windmills = \$2145.00

Cost of one _ scale prototype (to burn in march) = \$307. 15

Travel:

U-hall or Budget Moving Truck with 15' bed

This truck would carry all burnable construction materials. All items in this truck will be burnt on playa or disposed of in a landfill around Reno. The truck would be dropped off in Reno on Monday morning after the burn.

Capacity Volume: 849 cu. ft.
Max load: 2,860 lbs.
Gross vehicle weight: 11,000 lbs. max

Dimensions Inside dimensions: 14'1" x 7'7" x 7'2" (LxWxH)
Mom's Attic: 2'5" x 7'7" x 2'7" (LxWxH)
Deck height: 2'8"
Door opening: 7'3" x 6'5" (WxH)
Loading ramp width: 2'1" **Fuel** Unleaded or diesel fuel
Miles per tank: Approximately 400
Miles per gallon: Approximately 10
Fuel tank capacity: 40 gallons **Features** Cloth seats for 3 adults

Moving date: 8/23/2005 This quote includes 8 days of use and 2610 miles free. You may add damage waiver protection at the time of pickup.

\$2,062.00

32 hours, 7 minutes **Total Est. Distance:** 2157.53 miles

Basic Rental Fee (8 days, plenty of mileage)	= \$2062
Extra 4 days rental	= \$200
Estimated (fully loaded) in gas one way.	= \$500

Ben Flaster will use his 10'x8' trailer to carry material that will be returned to Michigan as well as extra space to bring back unexpected clean up times.

Estimated extra Gas used due to weight both ways = \$150

Total travel expenses for Windmill materials = \$2876

Other Costs:

Lances – nine eight foot 2x2's or equivalent	= \$18
Foil for lances – we'll find this somewhere	
Wicking – basic cotton cloth – we'll cover	
White Gas – 12 gallons	= \$72

Fire Extinguishers – three (plus donated ones) = \$60

Total other costs: = \$150

We plan to cover all reusable tool expenses fully ourselves, including power tools, shovels etc.

We also plan to cover reusable container including storage bins and metal trashcans for clean up.

Total for three windmills	= \$2145.00
Cost of one _ scale prototype --	= \$307. 15
Total travel expenses for Windmill materials	= \$2876
Total other costs:	= \$150

Grand Total of all estimated expenses = \$5478.15

Addition Request of help—It would be tremendously helpful to have use of a crane for an hour or two to lift the turrets onto of the bases. We can find another way if we need to, however a crane would seem to be the easiest and safest way to get this accomplished on all three windmills.

C. A schedule and /timeline which reflects your budget e.g., when materials will be purchased, when stages of construction will be completed, etc. Grants are distributed in installments which will relate to your schedule. Please include a playa timeline as well which details your set up and cleanup schedules.

January 1st 2005 -- First Windmill Prototype Burnt

February 16th 2005 – Grant Proposal Sent to Burning Man Org.

March 1 – April 1st – Two _ Scale prototypes built for ascetics, burn test, and to gain support for the Quixotic Windmill Project.

April 3rd. – Prototypes Burnt.

April 3rd – April 9th – Blue prints re-drawn based on success of prototypes.

April 9th – April 29th – First Full Scale Windmill pre-cut

April 29th – May 19th – First Windmill Built while second is pre-cut. Small parties will be held weekly and volunteers engaged, different groups working on different tasks supervised by Eric, Ben, and Chris H. and any other locals who want to be heavily involved..

May 19th – June 11th – First Windmill, taken apart and marked for reassembly. 2nd Windmill built. 3rd Windmill Pre-cut.

June 11th – June 25th – 2nd Windmill taken apart and marked for re-construction. 3rd Windmill Built.

June 25th – July 9th – Third Windmill taken apart, and marked. Crates and Stands for leaving fears in the windmills on playa created.

July 9th – July 23rd – Burn Shields pre-cut and marked.

August 9th – Windmill Party!

August 25th – Van Rented. Van and Trailer Loaded.

August 26th – Van and Trailer Leaves for BRC.

August 28th – Arrive on BRC. Unloading, build Burn Shields.

August 29th – Erect Windmills!

September 1st – Burn Windmills!!!

September 2nd Clean up and Rest!

D. Detailed drawings, sketches, and plans, hand-drawn or computer generated.

These are attached:

1. Hand Draw Plans (two pages, by me Eric)
2. 3D computer Images (two images created by the wonderful and talented Sparky).
3. Images of the New Years skeletal prototype (built in one and a half weeks by Ben Flaster without written plans).