

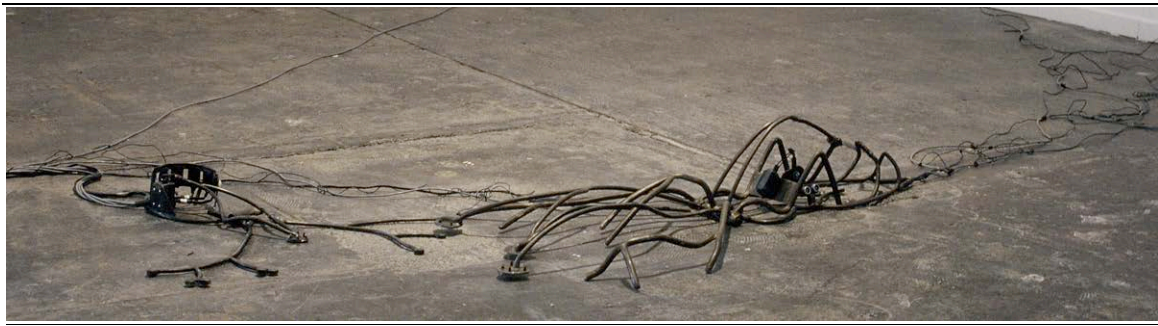
Peripheral Response

Steel, taps, wire, solenoid, Pure
Data, micro-controller, electronics

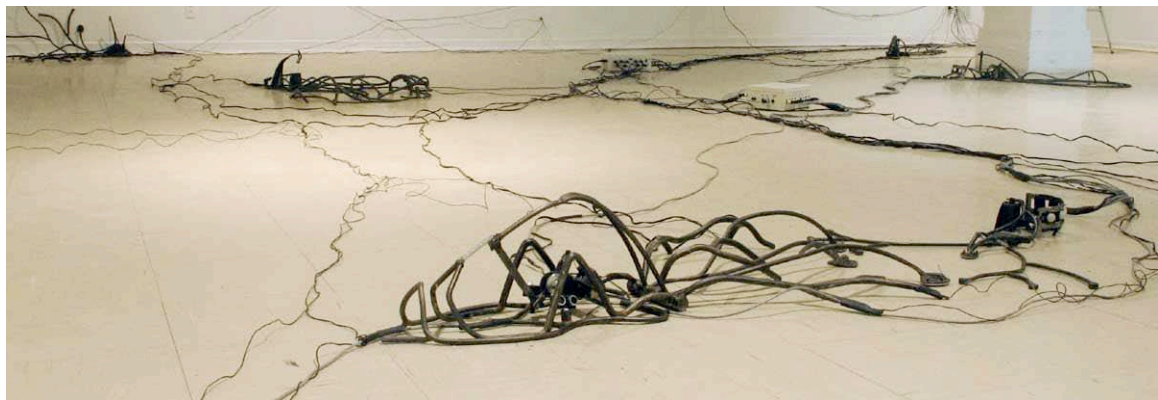
Installation:
600 ft² - 800 ft²
(56.8m² - 75.7 m²)

2006-8

Peripheral Response is a responsive installation, which uses the body's peripheral nervous system as a launching point for an exploration of possible and alternate ways of understanding the body. The work recognises that knowledge is limited by what we have discovered until now, and sees the relationship between science and magic to be as fluid as our ever-expanding understanding of the world. This tenuous relationship serves as fertile ground for fleshing out new metaphoric relationships, and discovering interesting points of connection between the natural and the technological. There are striking similarities between systems found inside our walls, be they flesh, gyproc, or plastic. If you take away the hard shell of technology, what remains is fragile and exposed system, no more impenetrable and flawed than yours or mine. This work attempts to visually draw parallels between natural networks, and those that are constructed, as well as to offer a visual metaphor that help us see the mechanical within the body and the sensitivity of the technological.



The installation is comprised of 9 responsive objects that are informed by medical textbook illustrations of the body's sensory receptors, which combined create our sense of touch. Each object has a solenoid, which mechanically pushes down an arm with a tap from a tap shoe fastened to it. In addition, the objects have multiple sensing devices, such as sonar and infrared, used to track not only the viewers' location, but also the distance of the viewer from each object. When the participant enters the installation space, the objects articulate robotically mimicking Morse Code and audibly following them as they move through the room. Included in the installation are two homemade interfaces, which communicate through midi to Pure Data. I also exhibit the computer open as part of the installation; the Pure Data patch visually echoes the aesthetics of the installation.



Peripheral Response - Technical Data

Technical details:

- **Dimensions and weights: (W x L x H)**

Wooden box # 1: 108 cm x 98 cm x 60 cm (42.5", 38.5", 24"), 45 Kg (100lbs)

- **Installation needs:** The installation is adaptable to any shaped space. Ideally the objects can be placed on the ceiling as well as the walls and floor.

Space required: between 56.8m² - 75.7 m² (600 ft² - 800 ft²)

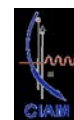
Power required: 1 15A 120V circuit; Type B outlets (flat blades with round grounding)

Furniture required: 1 secure place for storing the computer.

- Setup time: 3 days

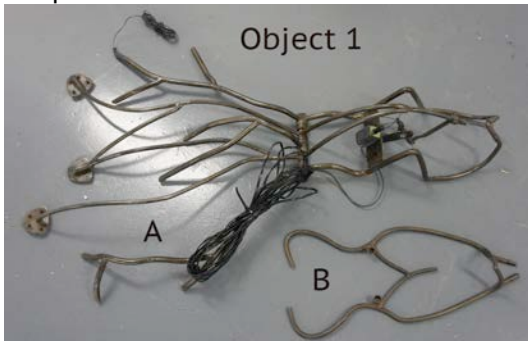
Goods:

Item	QT	Description	Artist	Exhibit. Center
1	9	Custom Metal Sculptures	x	
2	8	PIR sensors (built into sculptural pieces)	x	
3	6	Sonar sensors (PING)	x	
4	2	Custom interfaces	x	
5	1	Shuttle PC computer, keyboard, mouse	x	
6	1	Uno midi 1x1 adaptor	x	
7	8	Wall adaptors - 5x24vdc and 3x12vdc	x	
8		Wires black and grey	x	
9	1	tool kit - soldering iron and hand tools	x	
		Power bar and extension cords		x

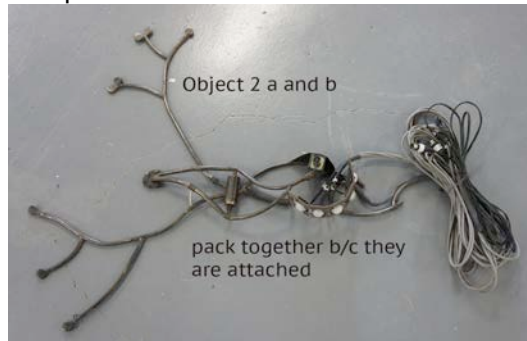


Images:

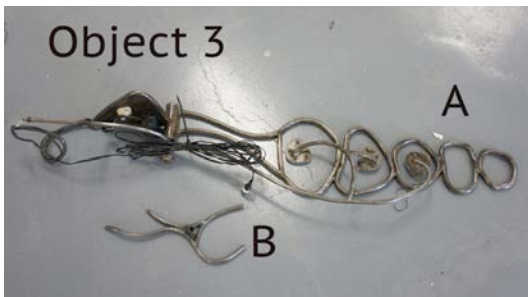
Sculpture 1



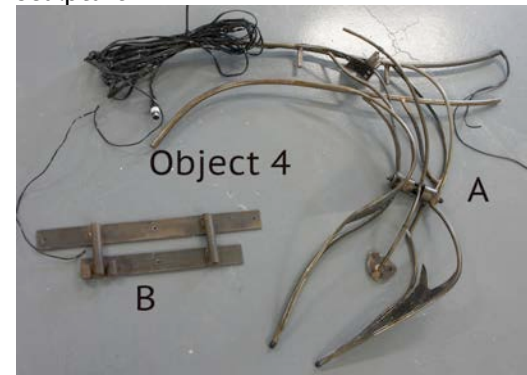
Sculpture 2



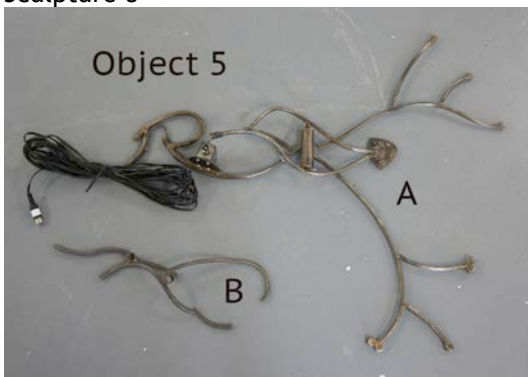
Sculpture 3



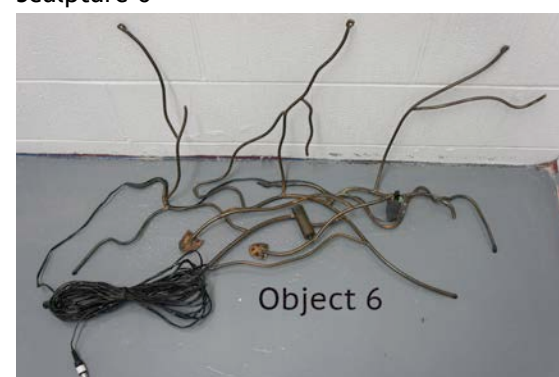
Sculpture 4



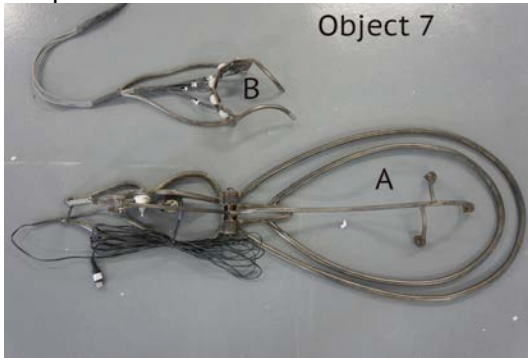
Sculpture 5



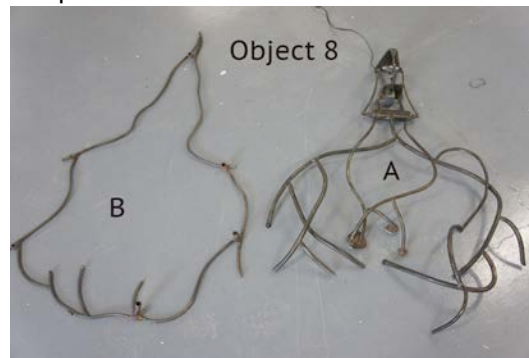
Sculpture 6



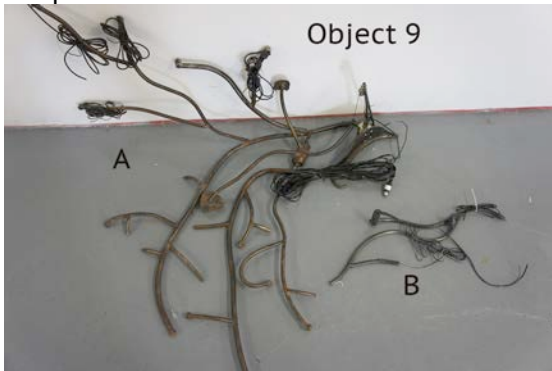
Sculpture 7



Sculpture 8



Sculpture 9



sensors



PING



PIR

Interface 1



Interface 2



Shuttle computer



Shuttle Computer
screen, chassis, keyboard,
mouse, midi 1X1 cable

Details



power adaptors, sensor wire, power bar

Operation Instructions:

To Turn on the system:

- 1- Turn on the power bar (notice the interfaces lights turn on)
- 2- Turn on the computer - wait for it to load.
- 3- Double click Pure Data patch labelled > Brazil-exhibition.pd
- 4- Go to Media>midi settings>
Change -> Input device 1: midisport UNO/1X1In
 -> Output device 1: midisport UNO/1X1Out
- 5- Click apply and click OK.

To Turn off the system:

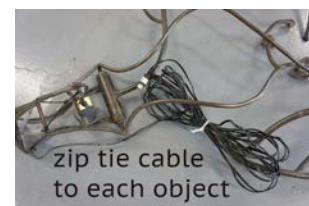
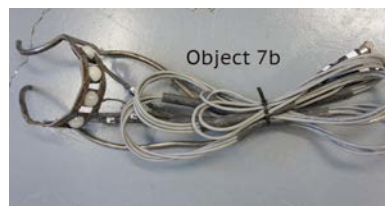
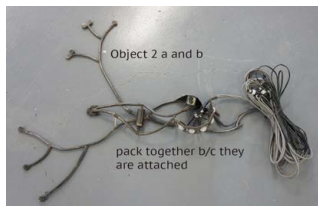
- 1- Close the patch - top right
- 2- Turn off the computer: start>shut down the computer
- 3- Unplug the power bar (notice the interfaces lights turn off)

Troubleshooting:

Restart the computer if there are any problems.

Packing Instructions:

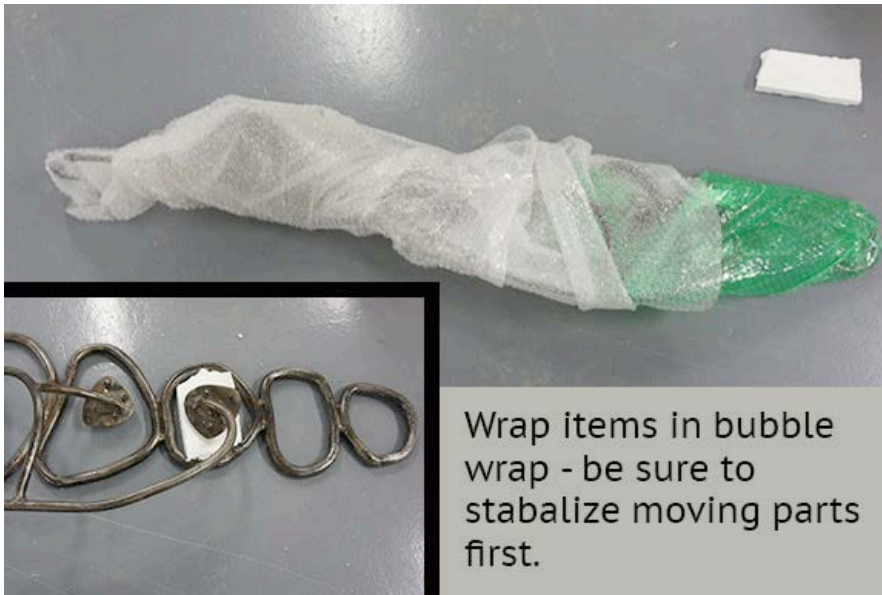
- 1- Disconnect everything.
- 2- Individually and securely wrap the interfaces in bubble wrap.
- 3- Wrap the shuttle computer components securely in bubble wrap (the computer body and screen). The keyboard and mouse do not need to be wrapped.
- 4- Remove the 6 PING sensors; place in a bag and bubble wrap the bag.
- 5- Untangle all of the wires. Separate out the decorative wires and bind them together separately.
- 6- Each object comes in 2 parts - separate part A and part B with the exception of Object 2. (see below image). Pack these parts together.
- 7- Separate object 7b from 7a and bind the cables (see below image)



- 8- Zip tie all of the solenoid wires securely to each of the metal sculptures. Wrap everything individually in bubble wrap.
- 9- Detach the MIDI extension cables and bind together.
- 10- Wrap the wires for the wall adaptors and put them all in plastic box. (5x24vdc and 3x12vdc)
- 11- Each sculpture has two parts - wrap each part securely in bubble wrap.
- 12- Place bubble wrapped objects in the box using pieces of Styrofoam to separate the items. The box should be densely packed - make sure that things cannot slide around.
- 13- There should be...
 - 17 metal objects (8 x 2 part sculptures plus 1 part sculpture (object6))
 - 2 interfaces
 - a bag of 6 x PING sensors
 - a bag containing 5x24vdc and 3x12vdc wall adaptors
 - bound decorative wires
 - bound grey sensor wires
 - bound MIDI extension cables
 - a shuttle computer (chassis, screen, keyboard, mouse, 2 power cables, 1 midi Uno, 1VGA cable).
 - 1 x black power bar.

Method for packing the boxes:

1 - Wrap all objects individually:



2) Tightly pack the box - separate items with cloth and Styrofoam. Object 9 and 6 are the first ones in the box. Everything else is fit in as it makes sense. The order here was 9,6,5,2,8,1,4,3,7. Objects can be placed upside down - providing they are tightly wrapped.



3) Place two pieces of Styrofoam on top and close the box.

