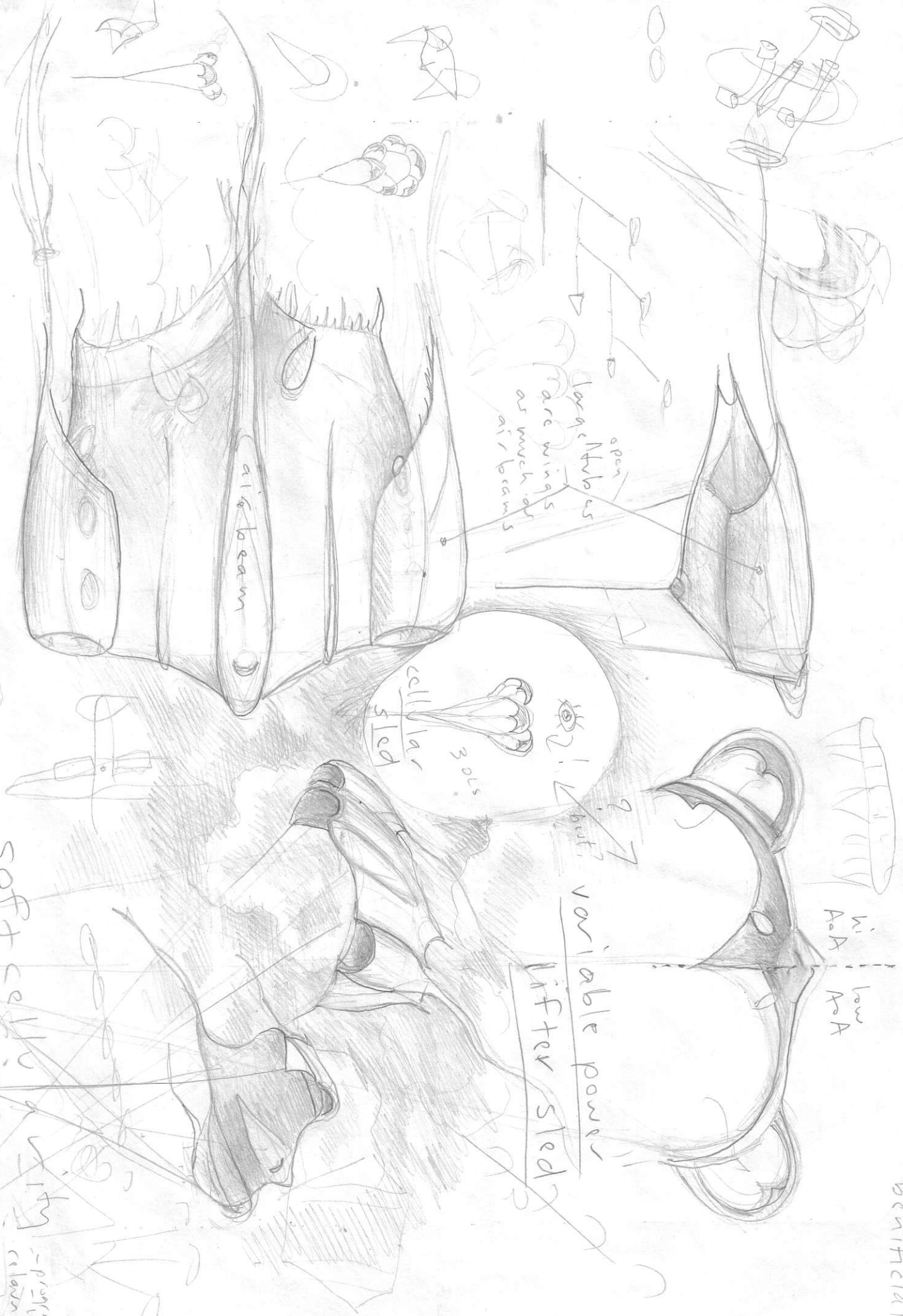


sky room / no surface any flat spin is dangerous, high enough - harmless, even beneficial



variable power lifter sled

cellular sled  
3 ovs

air beam

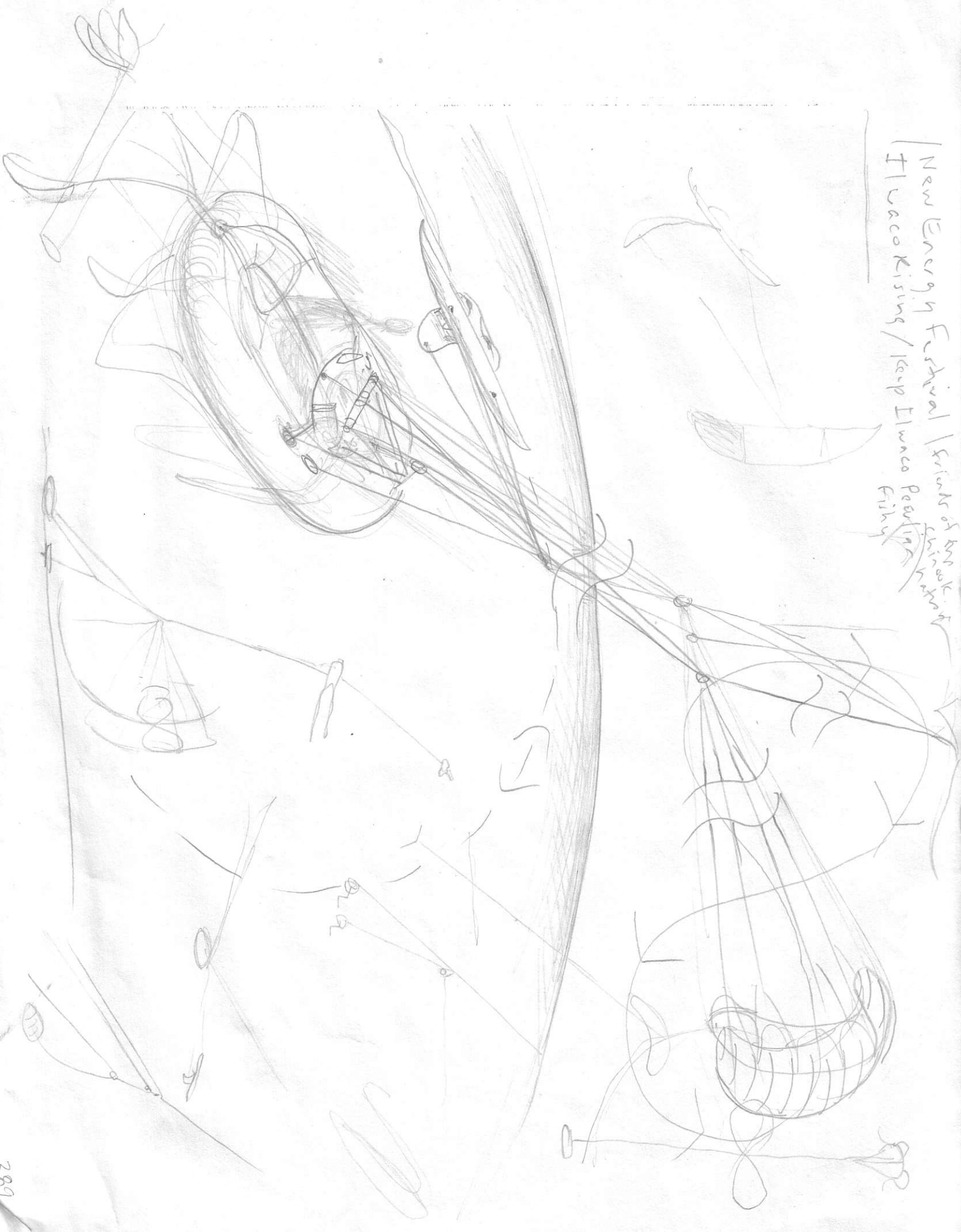
open  
large tubes  
are wings  
as much as  
air beams

Mi AoA  
low AoA

soft cell  
light weight  
stabilizing

-progress  
relaunch  
stabilizing

New Energy Festival | Series of <sup>cinema</sup> <sup>work</sup>  
Flaco Kising / Icaro Ilwaco Postcard  
Fishy



# Bipedal Ornithopter

## WING, LEFT-SHOWN

MATERIALS: SHEET 2

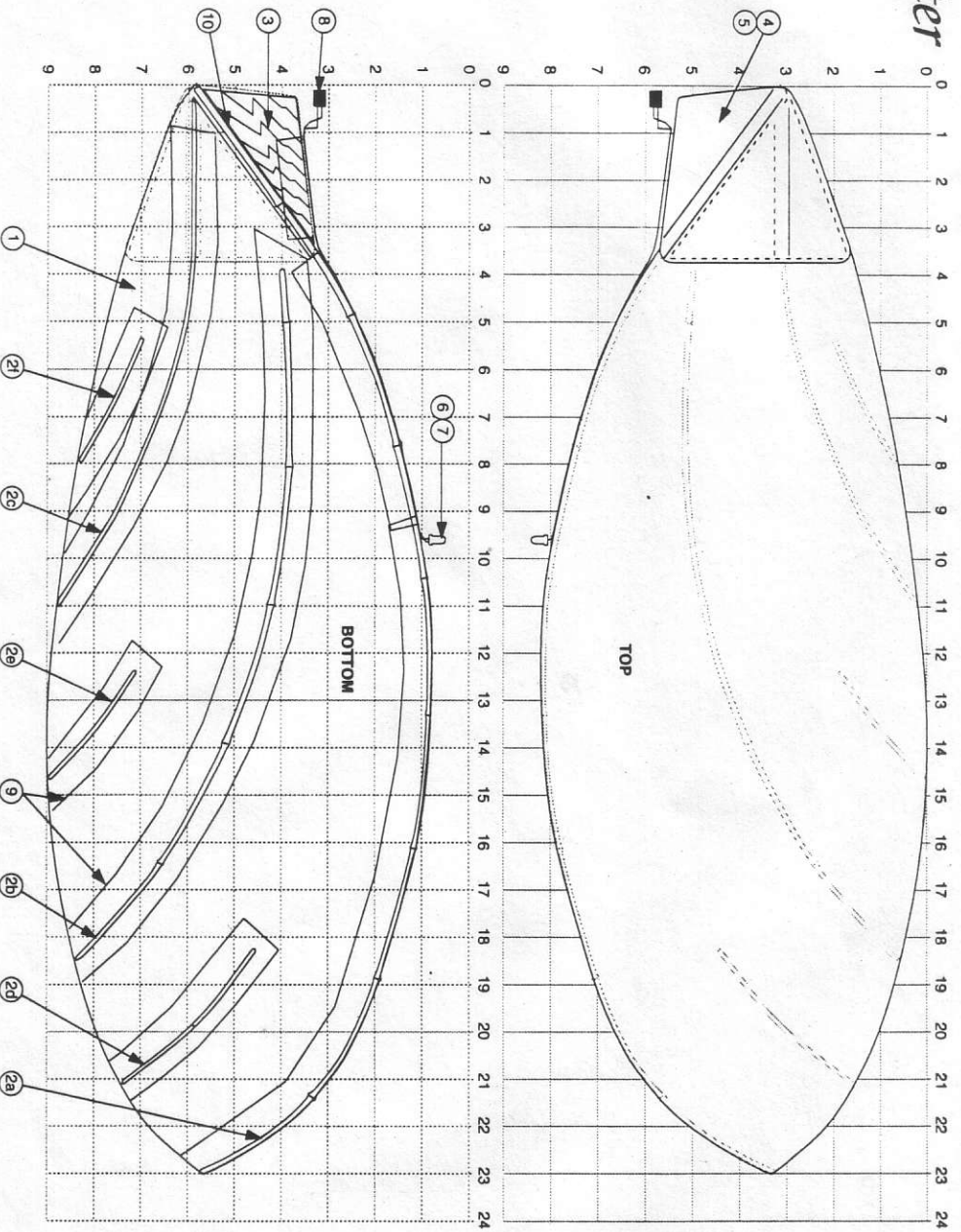
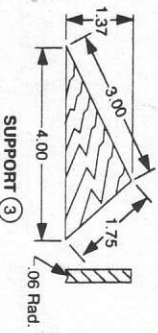
- 1 POLYESTHER 5 MIL THK.
- 2 BAMBOO, SEE TABLE 1
- 3 WOOD, .187 THK.
- 4 CLOTH, NYLON
- 5 THREAD, NYLON
- 6 LED, BRIGHT RED
- 7 WIRE, PIANO .03 DIA.
- 8 CONNECTOR, LED
- 9 TAPE, 1" CLEAR PLASTIC
- 10 GLUE

RIGHT WING  
MIRROR IMAGE

SCALE: 1 = 4

Designed and built by  
David Santos  
Austin, TX.

TABLE 1	
LTR	DESCRIPTION
2a	.156 DIA X .26.0 LG.
2b	.125 DIA X 15.0 LG.
2c	.093 DIA X 12.0 LG.
2d	.062 DIA X 4.0 LG.
2e	.052 DIA X 3.0 LG.
2f	.062 DIA X 2.75 LG.



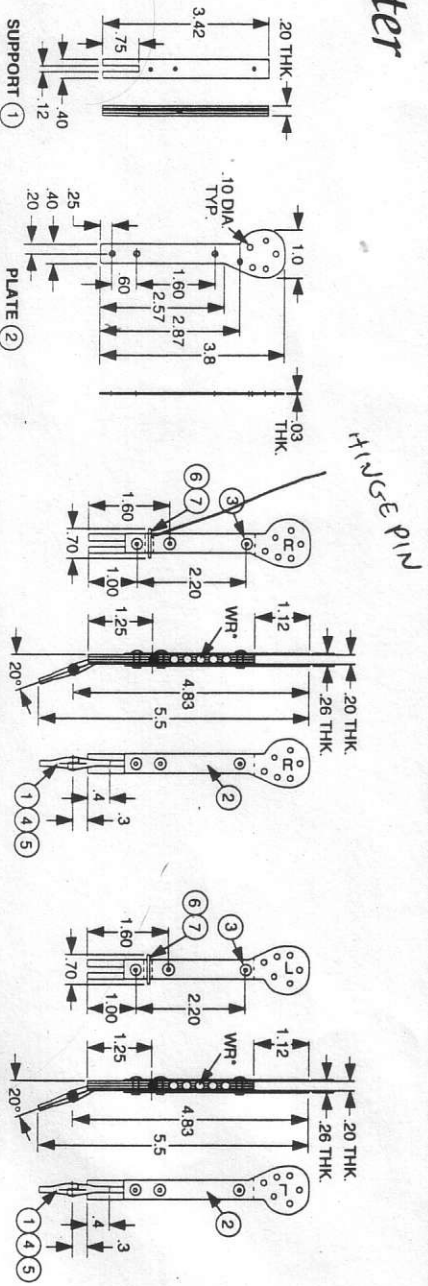
# Bipedal Ornithopter

## SUPPORT, WING

MATERIALS:

- 1 PLYWOOD, .05 THK, SW X 5.5LG.
- 2 ALUMINUM SHEET .03 THK, 1. X 4.1LG-.2
- 3 RIVET, POP .10 DIA.-3
- 4 HINGE B
- 5 GLUE, WOOD
- 6 METAL ROD, .05 DIA. X .88LG.-1
- 7 CARDBOARD BUSHING, .12 DIA. X .40LG.-1

SCALE: 1 = 4  
Designed and built by  
David Santos  
Austin, TX.



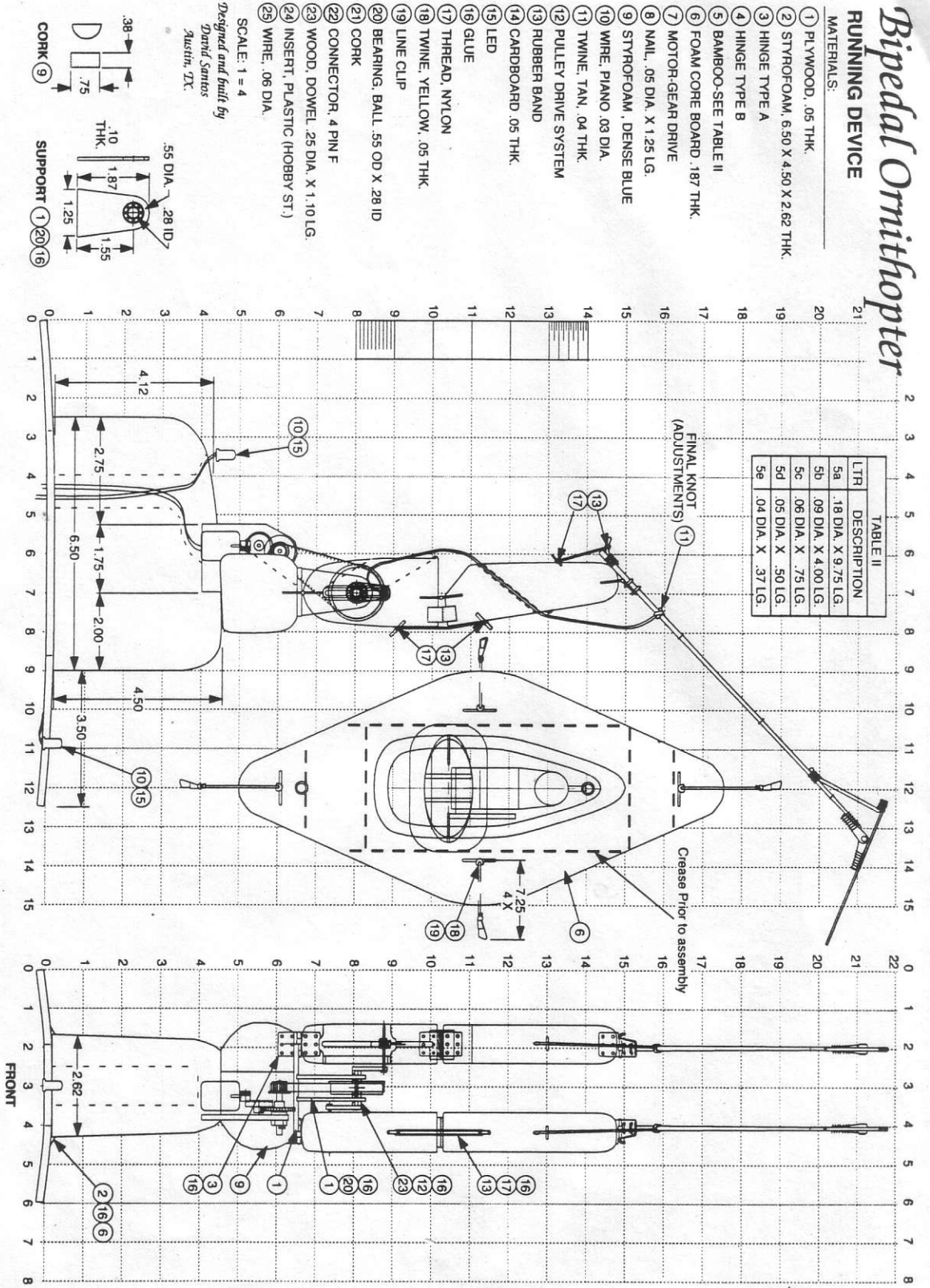
# Bipedal Ornithopter

## RUNNING DEVICE

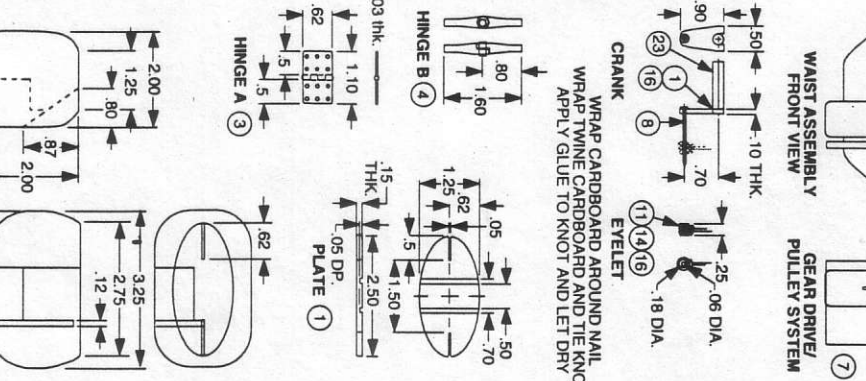
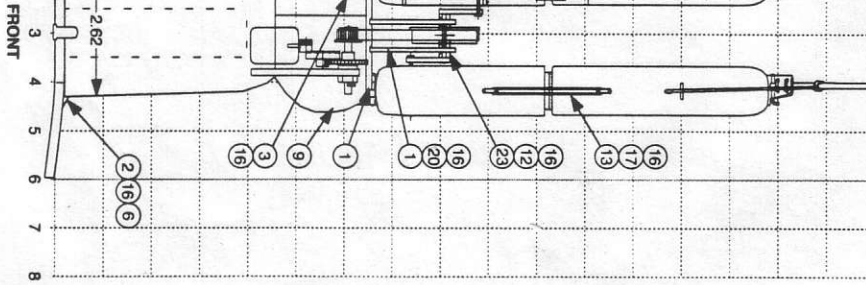
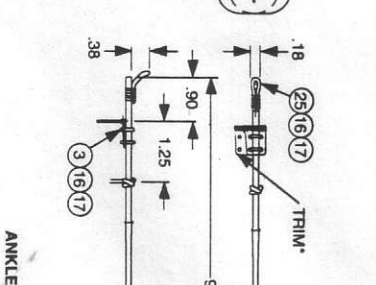
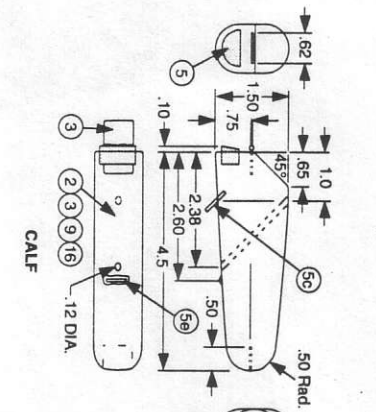
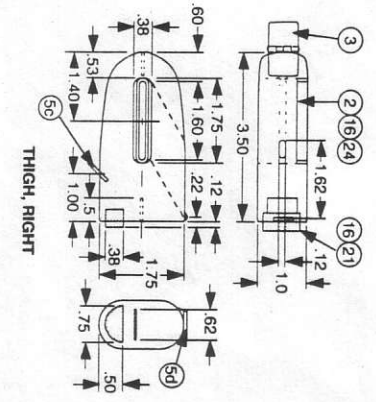
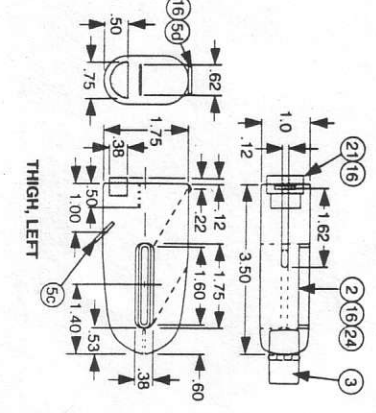
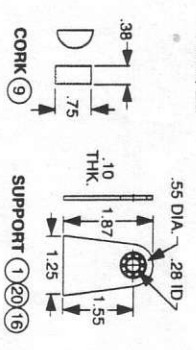
- MATERIALS:
- 1 PLYWOOD, .05 THK.
  - 2 STYROFOAM, 6.50 X 4.50 X 2.62 THK.
  - 3 HINGE TYPE A
  - 4 HINGE TYPE B
  - 5 BAMBOO-SEE TABLE II
  - 6 FOAM CORE BOARD, .187 THK.
  - 7 MOTOR-GEAR DRIVE
  - 8 NAIL, .05 DIA. X 1.25 LG.
  - 9 STYROFOAM, DENSE BLUE
  - 10 WIRE, PIANO .03 DIA.
  - 11 TWINE, TAN, .04 THK.
  - 12 PULLEY DRIVE SYSTEM
  - 13 RUBBER BAND
  - 14 CARDBOARD, .05 THK.
  - 15 LED
  - 16 GLUE
  - 17 THREAD, NYLON
  - 18 TWINE, YELLOW, .05 THK.
  - 19 LINE CLIP
  - 20 BEARING, BALL, .55 OD X .28 ID
  - 21 CORK
  - 22 CONNECTOR, 4 PIN-F
  - 23 WOOD DOWEL, .25 DIA. X 1.10 LG.
  - 24 INSERT, PLASTIC (HOBBY ST.)
  - 25 WIRE, .06 DIA.

TABLE II

LTR	DESCRIPTION
5a	.18 DIA. X 9.75 LG.
5b	.09 DIA. X 4.00 LG.
5c	.06 DIA. X .75 LG.
5d	.05 DIA. X .50 LG.
5e	.04 DIA. X .37 LG.



SCALE: 1 = 4  
 Designed and built by  
 Danit Sures  
 Austin, TX



# Bipedal Ornithopter

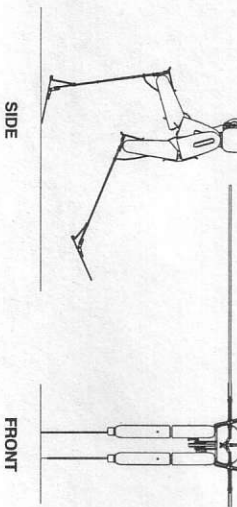
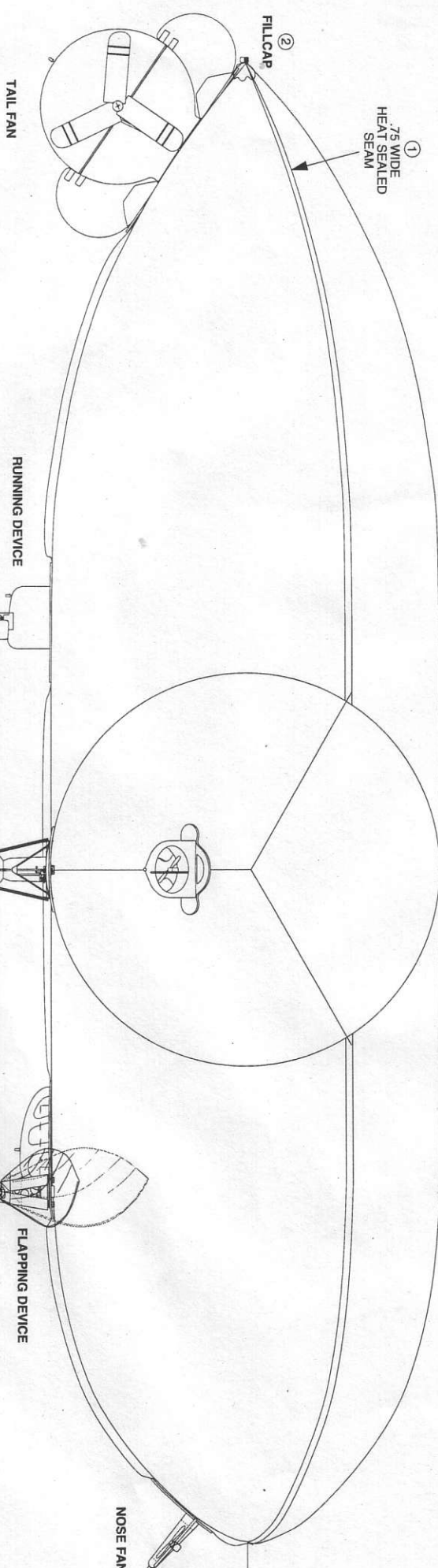
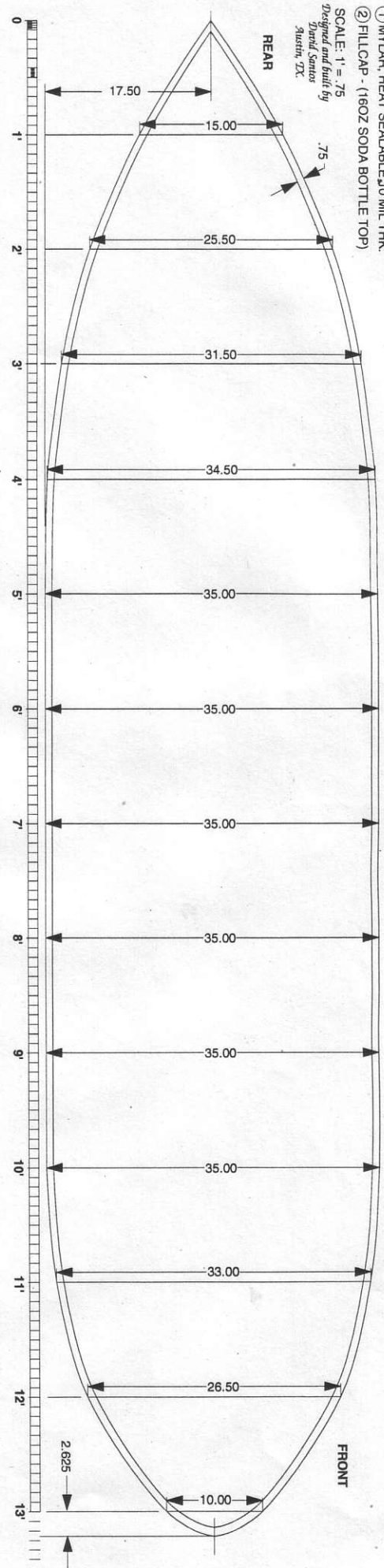
## BLIMP ASSEMBLY

MATERIALS:

- ① NYLON, HEAT SEALABLE, 30 MIL. THK
- ② FILLCAP - (16OZ SODA BOTTLE TOP)

SCALE: 1" = .75"  
 Designed and built by  
 Gerald Santos  
 Austin, TX

BLIMP  
 TEMPLATE  
 1/3 SECTION

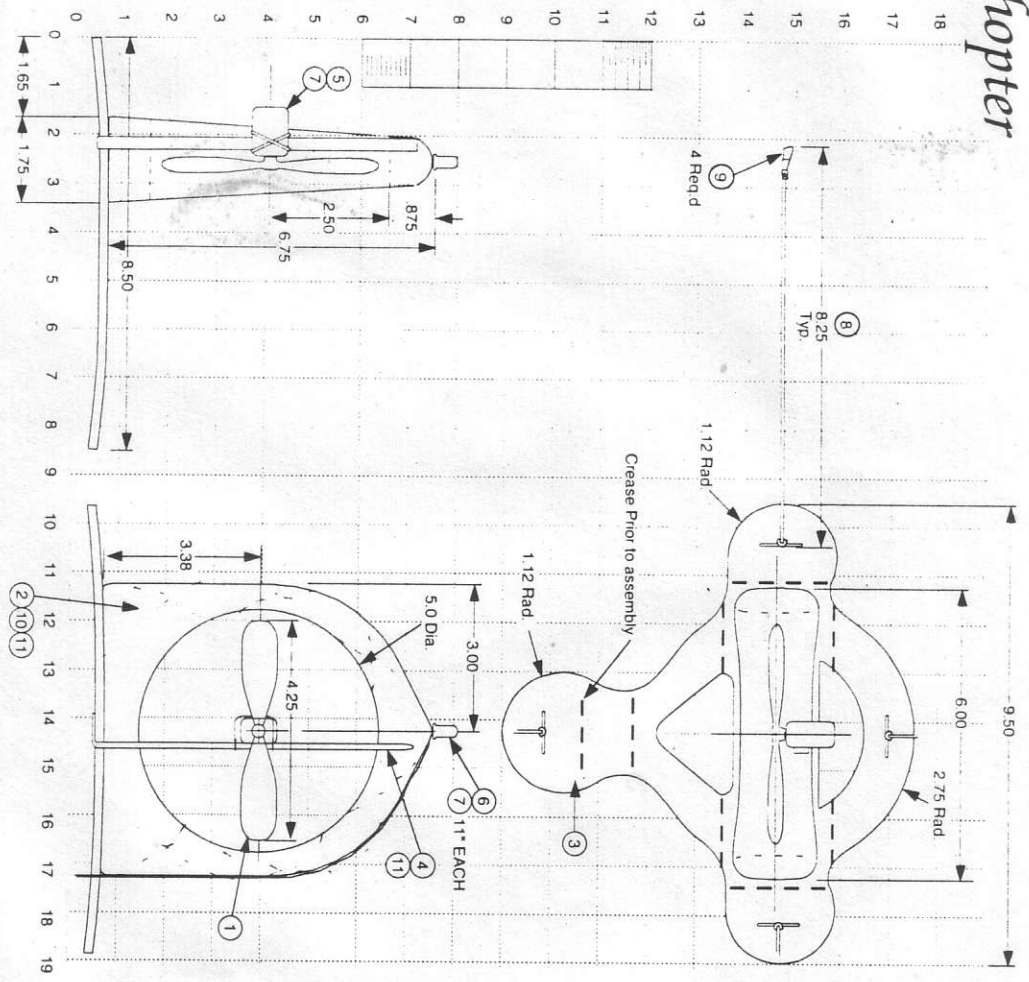


# Bipedal Ornithopter

## NOSE FAN

- MATERIALS:
- 1 PROPELLER, MODEL AIRPLANE
  - 2 STYROFOAM SHEET 1.75 THK.
  - 3 FOAM CORE BOARD 3/16" THK
  - 4 TUBE, STEEL 25 DIA
  - 5 MOTOR, ELECTRIC-GEAR DRIVE
  - 6 LED, BRIGHT RED
  - 7 WIRE, PIANO .03 DIA
  - 8 TWINE, YELLOW, .05 THK
  - 9 LINE CLIP
  - 10 TAPE, REINFORCED 50 WIDE
  - 11 GLUE

SCALE: 1 = 4  
 Designed and built by  
 David Santos  
 Austin, TX

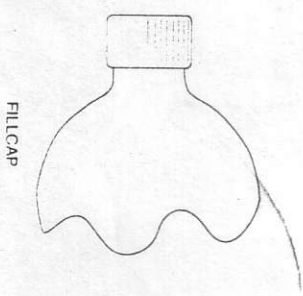


# Bipedal Ornithopter

## MISCELLANEOUS

- MATERIALS:
- 1 10" PLASTIC SODA BOTTLE TOP
  - 2 HELIUM
  - 3 TAPE, REINFORCED 25 WIDE
  - 4 TAPE, REINFORCED 50 WIDE
  - 5 TAPE, CANVAS
  - 6 TWINE, YELLOW, .05 THK
  - 7 LINE CLIP, FISHING TYPE
  - 8 BATTERIES:
  - 9 WIRE, PIANO .03 DIA
  - 10 GLUE

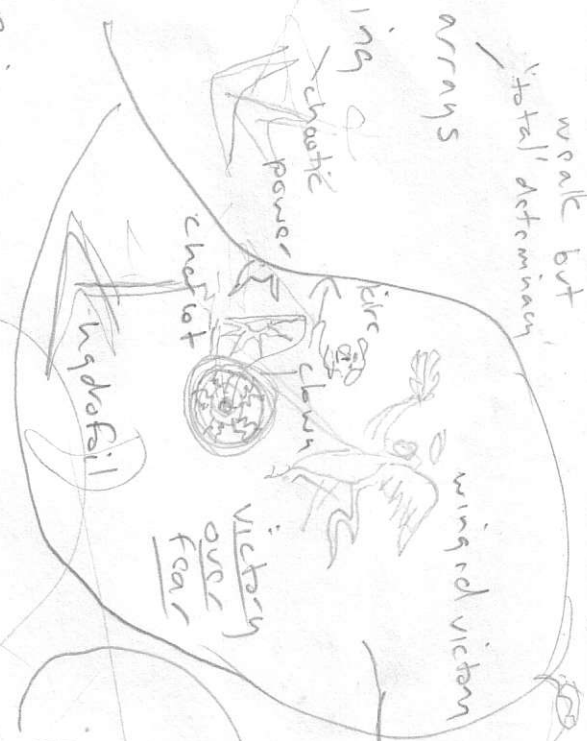
WR = WEIGHT REDUCTION



FILLCAP

weak but  
total determination

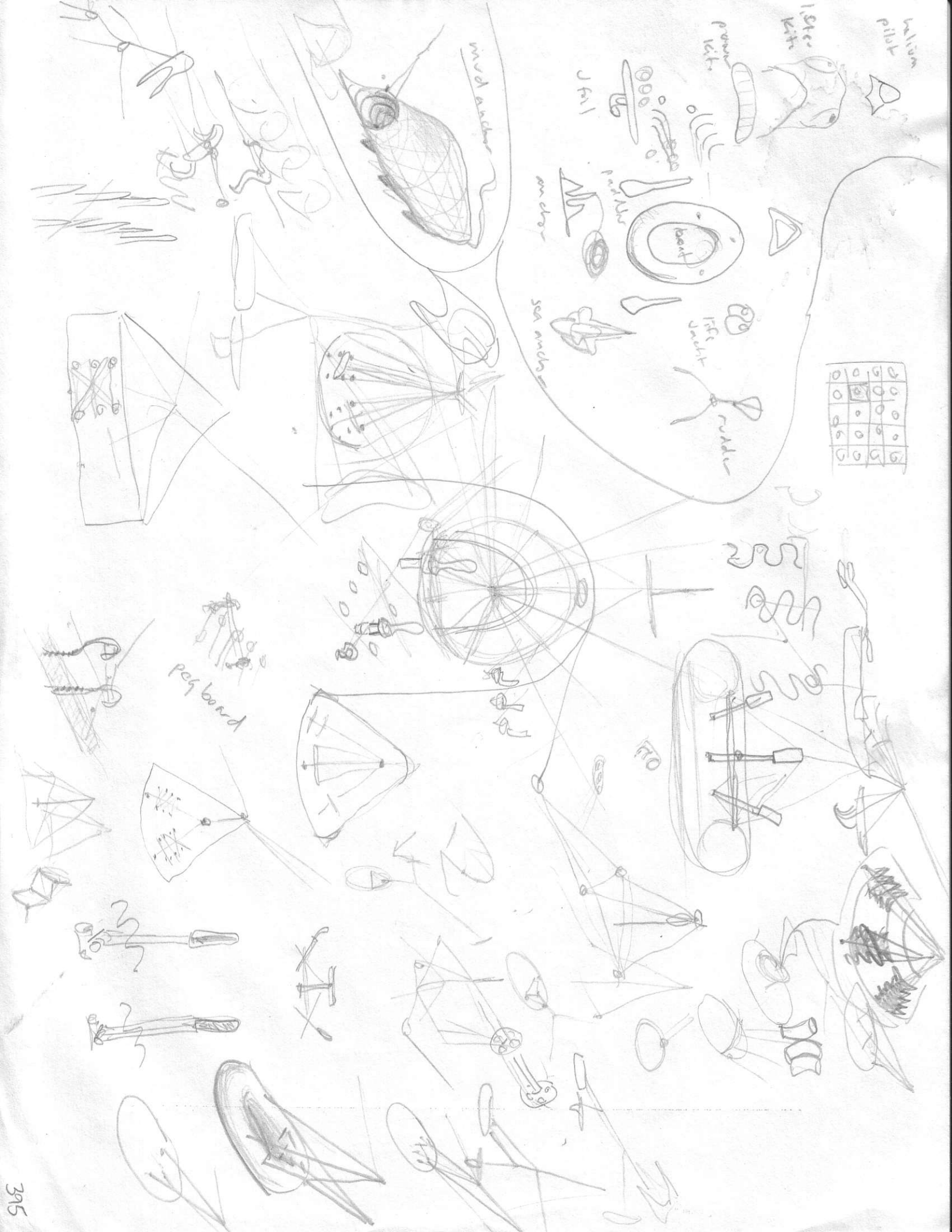
Free flying



Ecologies of Being

- counter orientations
- epicircular oscillation





ballast

1.5 liter kite

power kite

J-hall

wind anchor

sea anchor

sea anchor

rudder

peg board

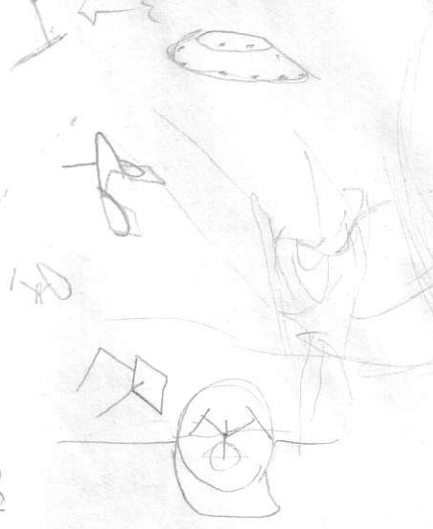




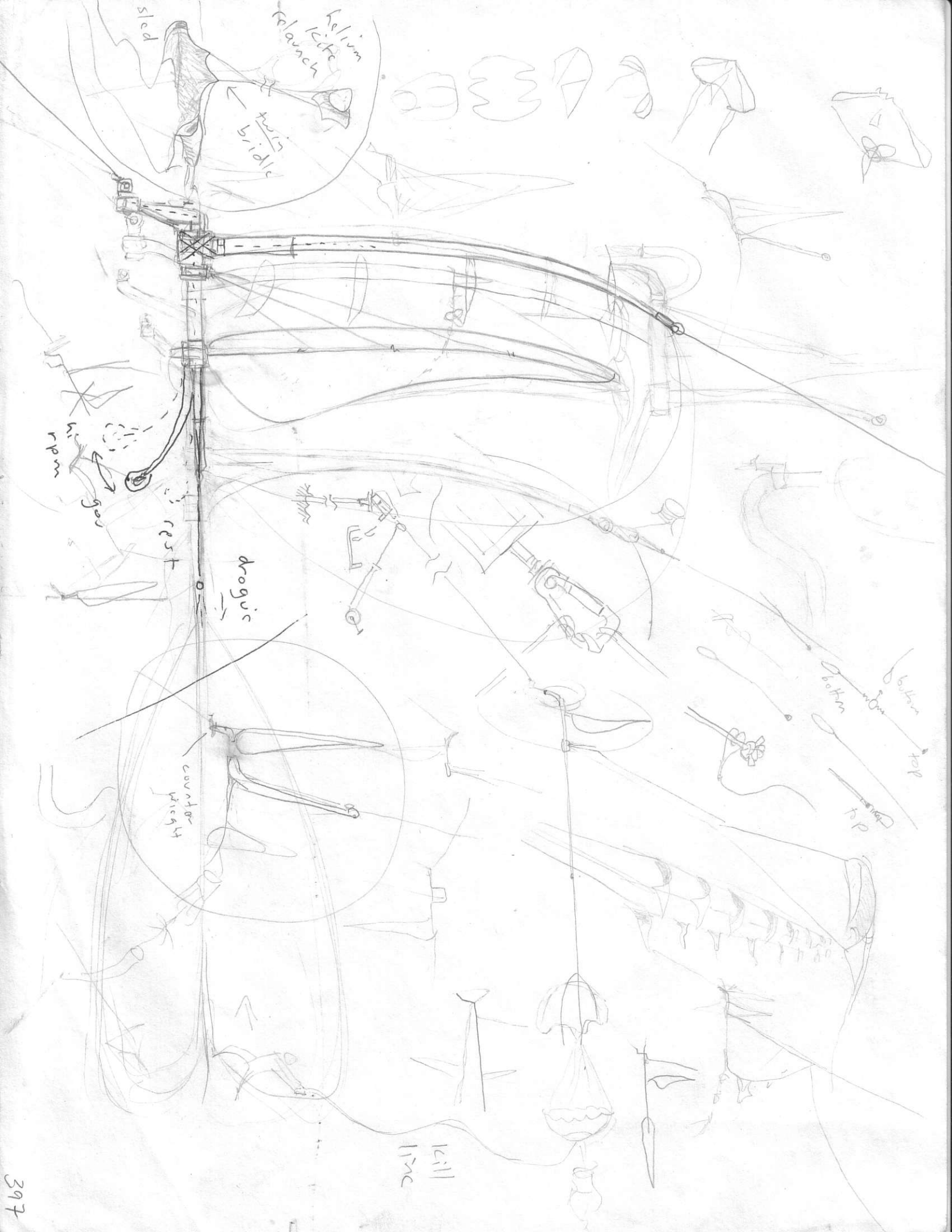
air bag "hook"  
for more humane  
"catch & release"

Endless Potlatch  
wealth redistribution center  
reuse collective

Pre-enactors  
Pre-nach-



off axis  
wind  
supply  
inward?



sled

Helium Kite Relaunch

twin-bridle

rpm gear

rest

drag

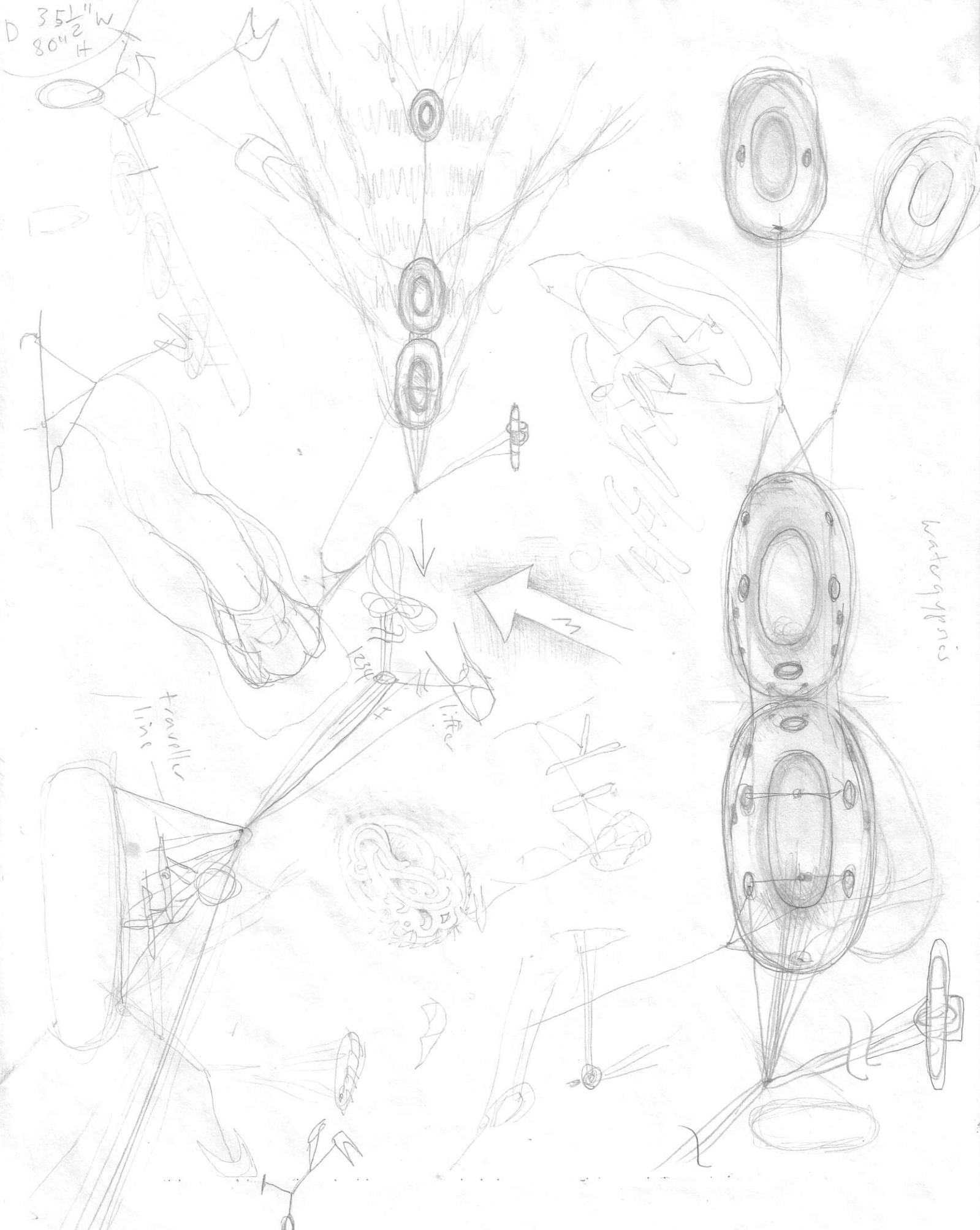
counterweight

kill line

bottom

tip

D 35 1/2" W  
80" H



traveler  
line

life

waterproof

3/2/99

48624

LAPRAGS -  
barzene woti?

simple but  
subtle secrets  
thicker than  
common complexity

leftline  
guards on  
elec prop  
circuit

power  
astoria

park  
power kite  
and power kite

pitch roll  
flaps  
truncals  
twiddle  
brake

novel  
rigger

JIBE

Jibe

Lifts  
Power kite  
Side plane  
Drogue  
Boat

choke?

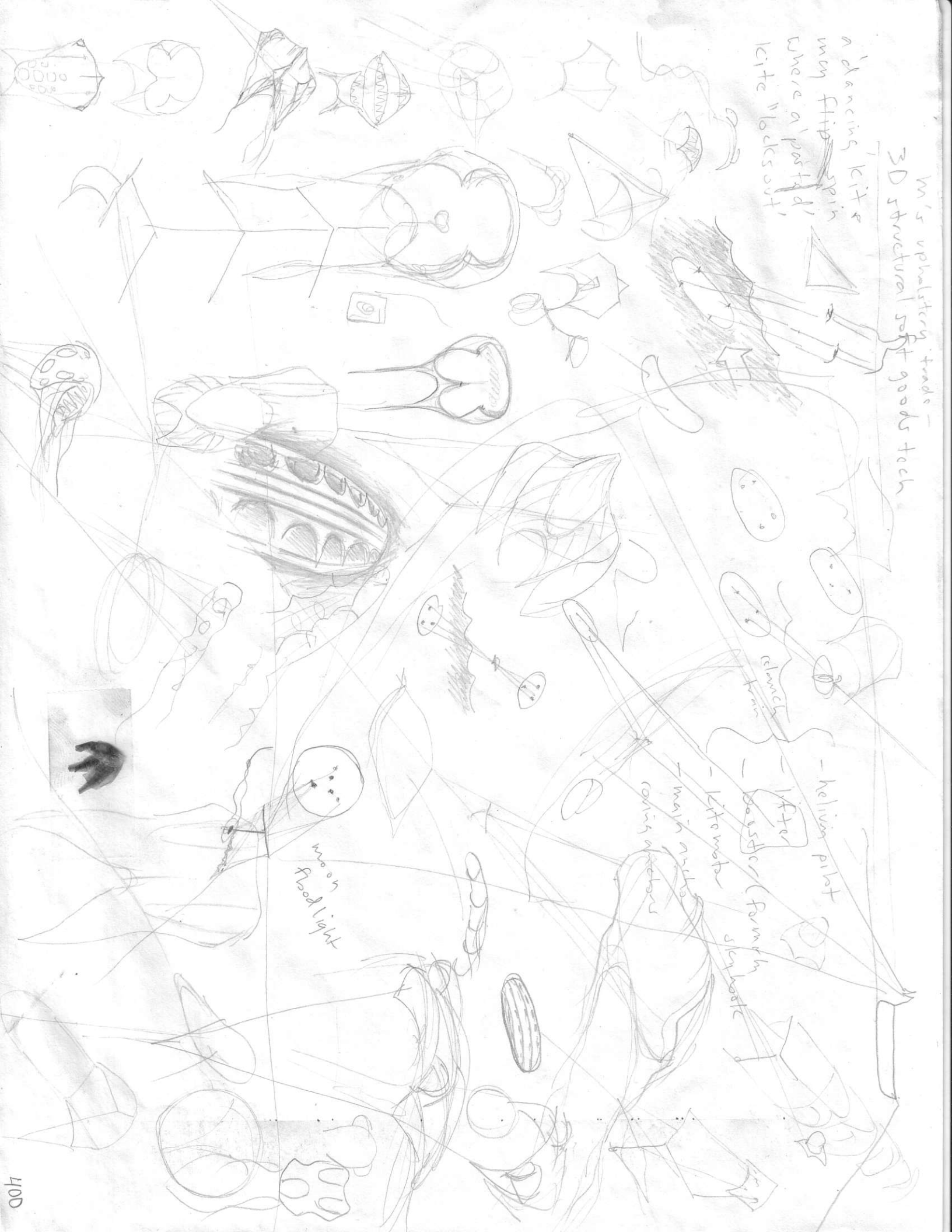
stretched  
to a ft  
parallel

stow plan  
stabilizing  
anti person  
balance  
face fly  
wedge

disable by  
stirplane  
PLTS  
losing one side

m's upholstery trade -  
3D structural soft goods tech

a 'dancing' kite  
w/ flip spin  
where a 'post d'  
kite 'locks out'



moon  
flood light

- helium pilot  
- after  
- booster (forward)  
- kite motor  
- main antenna  
- coiling mechanism  
- slingshot

self-mythology



He  
 not to  
 scale  
 bridle  
 spider  
 flying  
 control bar

art for every thing's sake

# PACIFIC NEUTROSAL

Kite colonies  
gen  
sky colonist

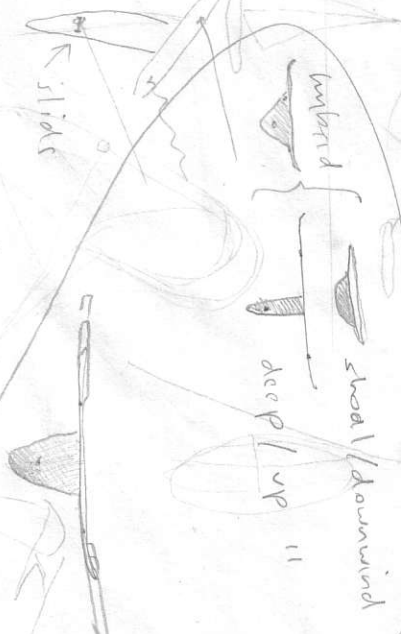
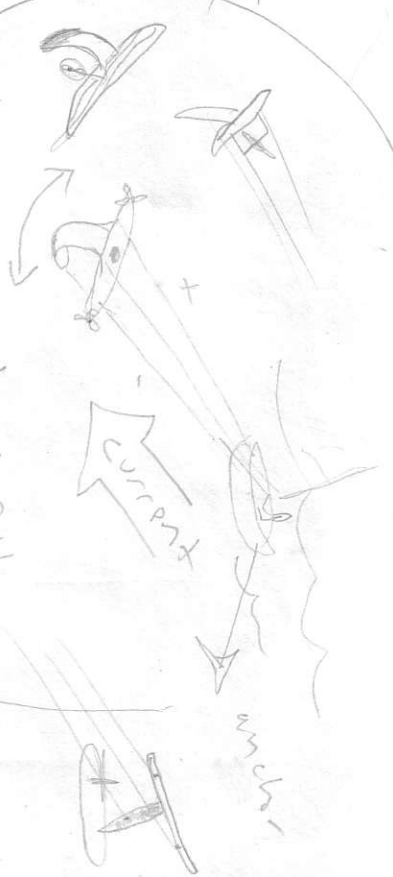
self piloting  
self relaunching  
or robust  
safe  
effective

Kite systems



NFS-  
not for  
scale

sweeping i-foil  
generator  
super low current  
chump



slits  
rudder  
drogue







- mulch scoop
- bottom liner
- paper holder
- hand saw

Inclined lanes

1 ft

5 ft

15 ft

J-fill handle

men's wheel

pitching

bottle

bottle

treadle

pull

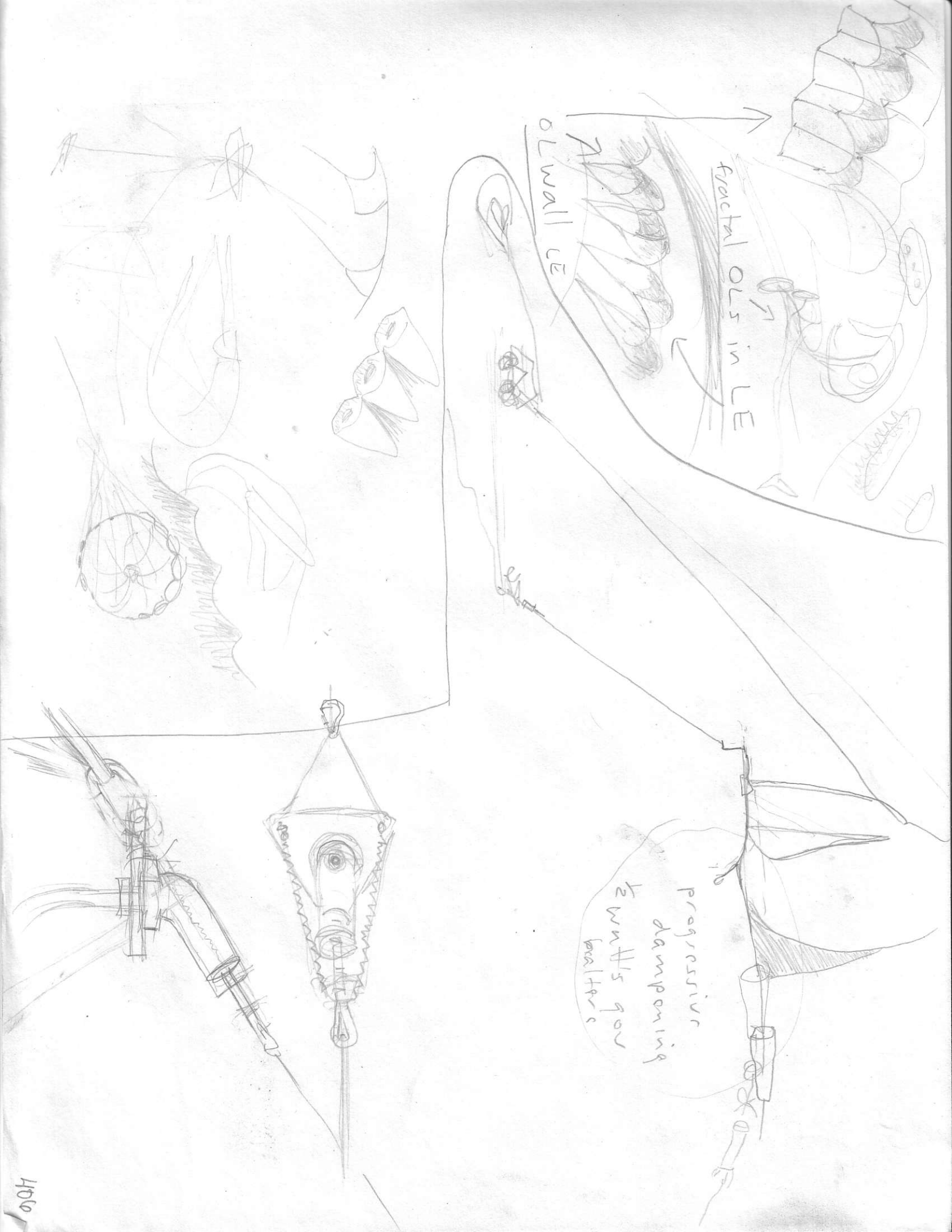
quikcamp  
hand/dish wash

bealm

brees-

collapses only in high winds





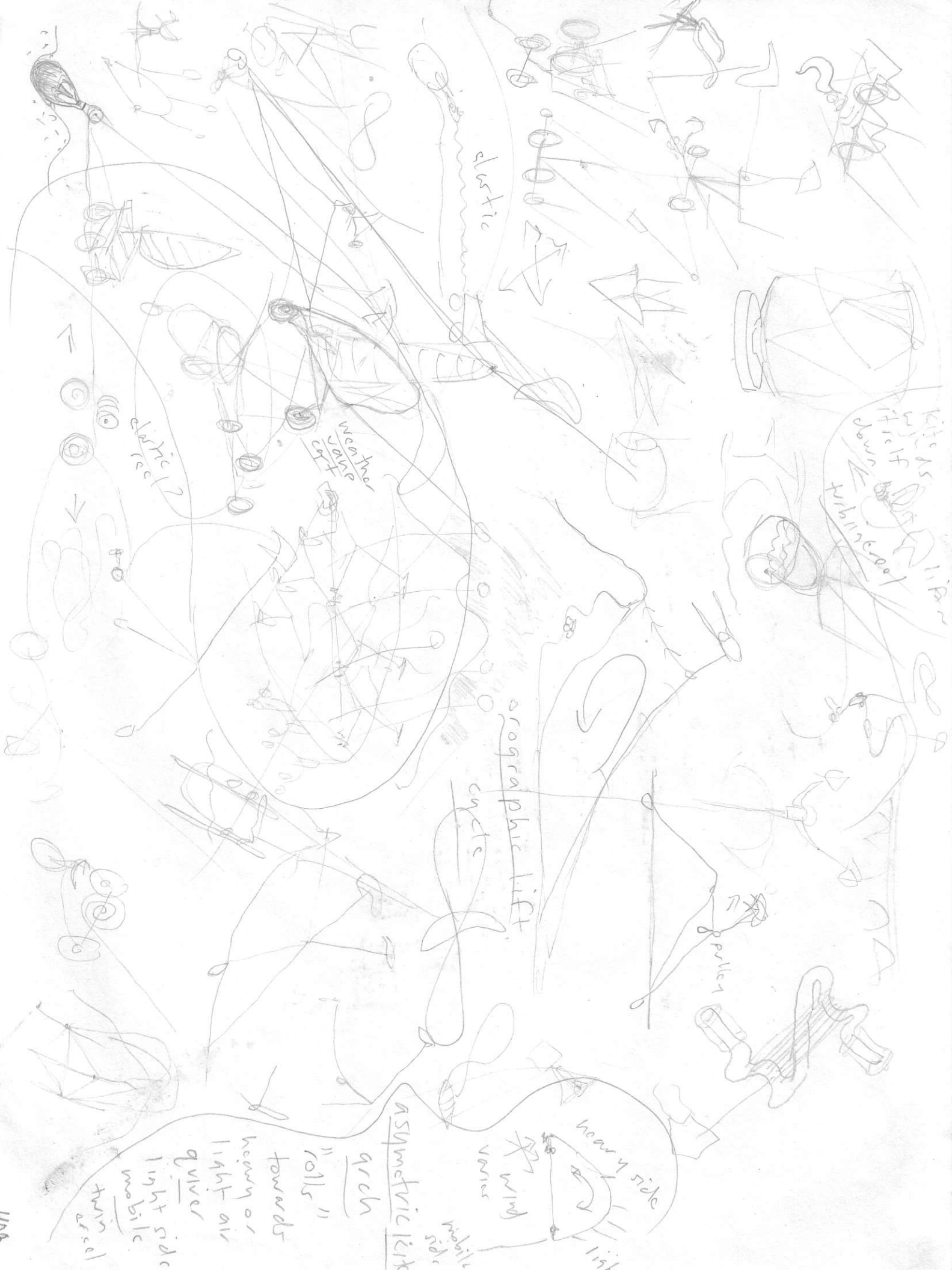
fractal OLS in LE

OL wall LE

progressive damping

1/2 watt's gov





kite as  
 lift  
 wind  
 turbine  
 puller

elastic

elastic

weather  
vane

barometric lift  
cycle

puller

asymmetric lift

heavy or  
 light air  
 gives  
 light side  
 mobile  
 turn  
 as well

heavy side

wind





Flights of the Imagination, made tangible

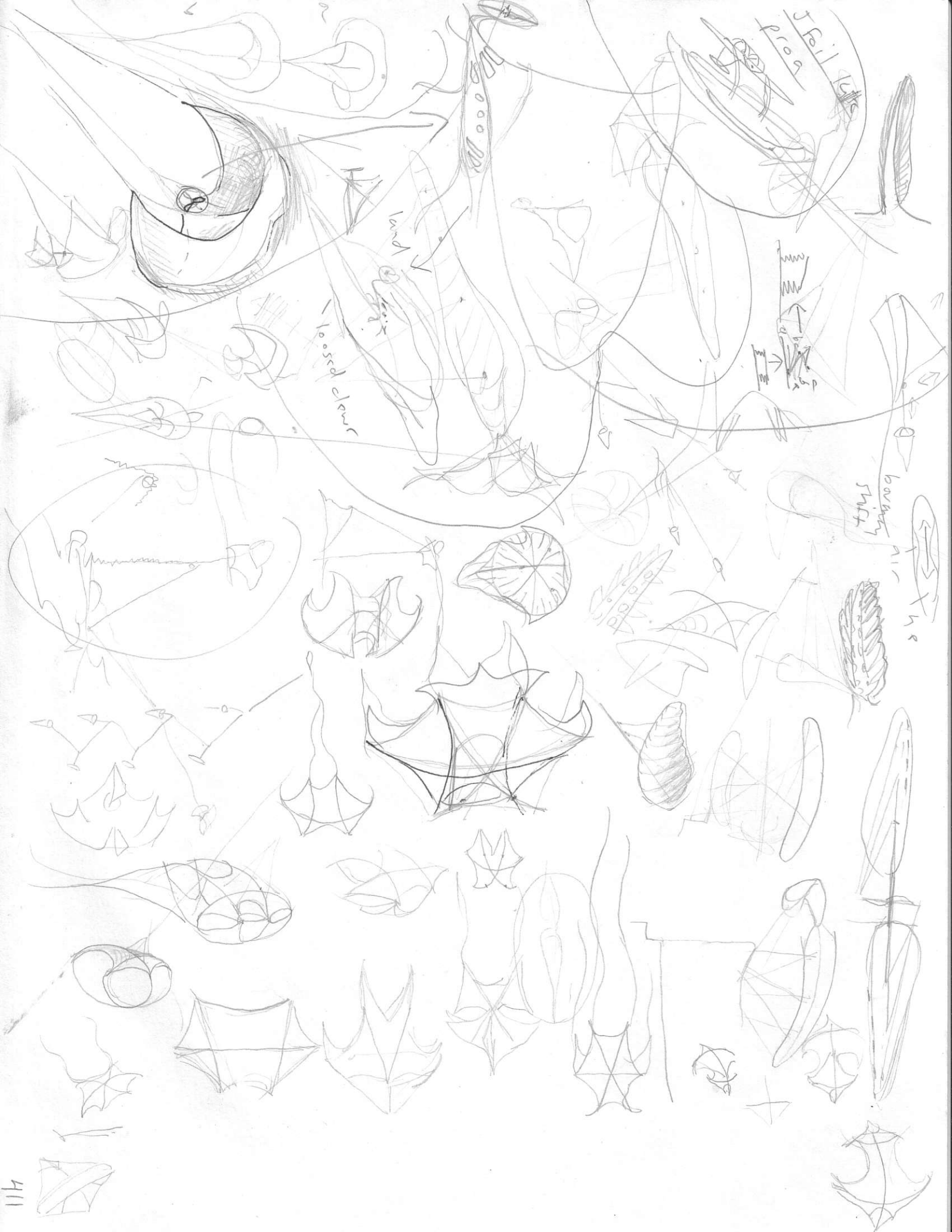
pilot  
keeps LTA off ground  
during blow

self limping drogue

UK signals

engage landing zone (crops)

Flat space cosmology predicts existence of Santa Claus, Prometheus, and Toys



J. Fall 1965  
proa

land  
loss of plant

bearing fruit



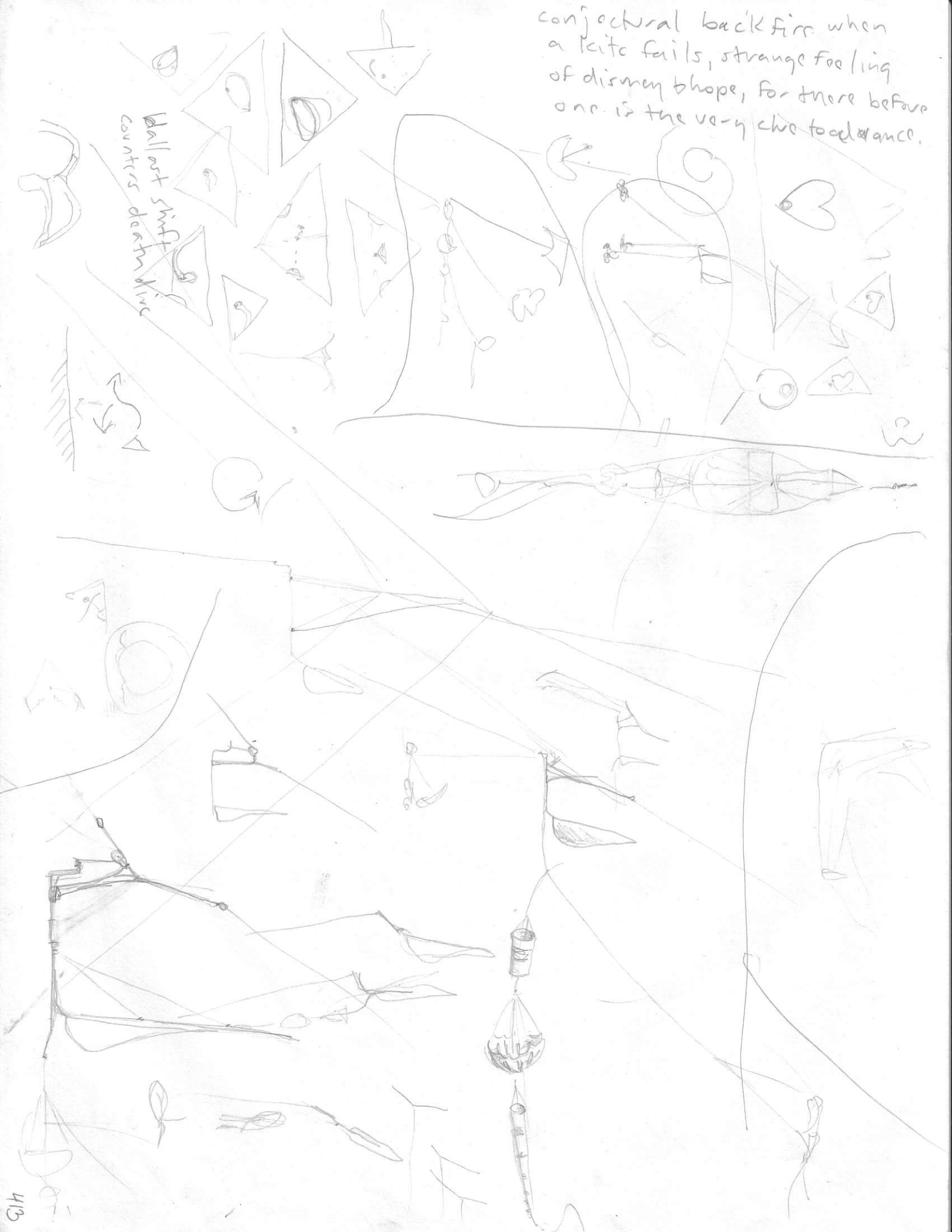


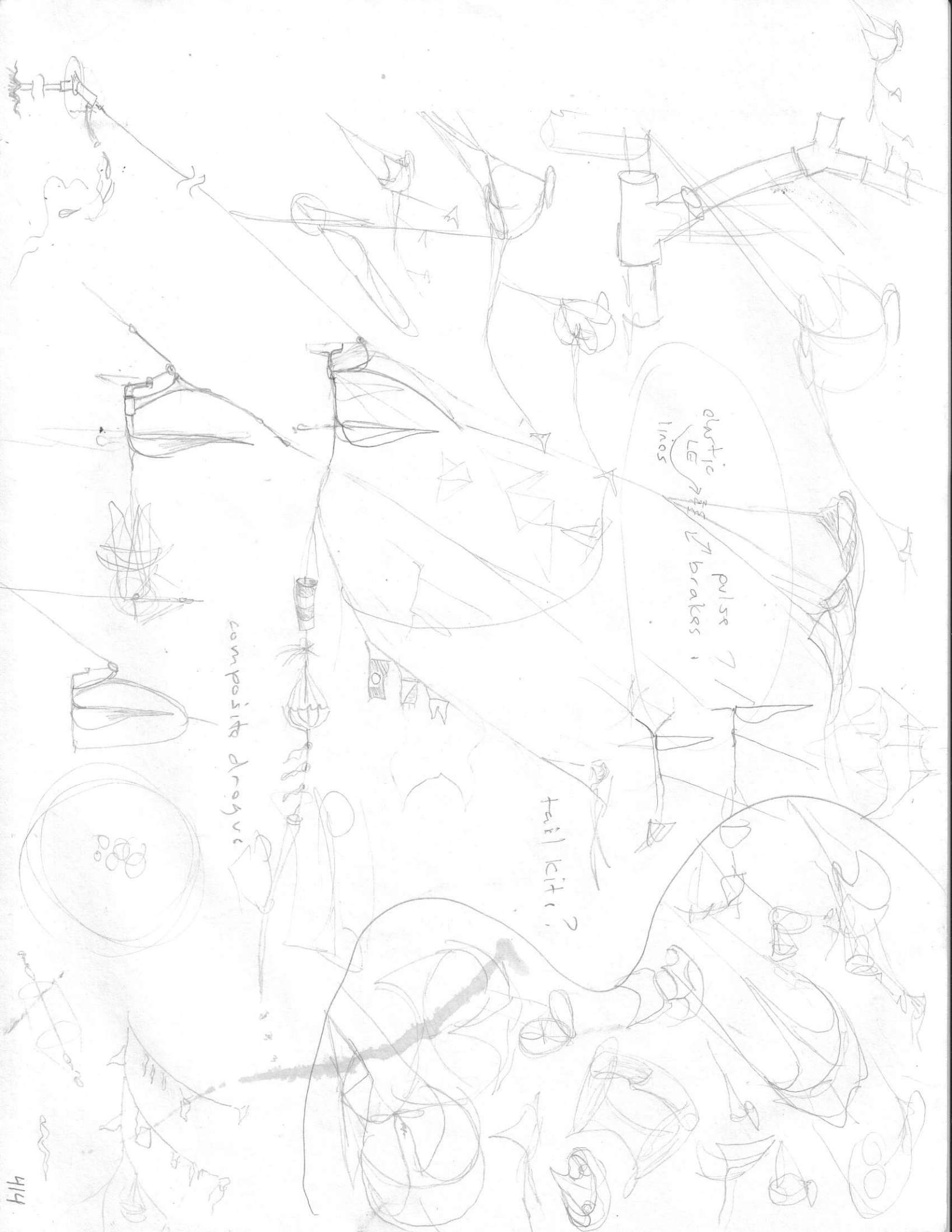
EO Wilson strikes back in  
burned by the  
protests on  
sociobiology  
Orion as surrogate

30  
45  
60  
15  
90°  
hair wind  
mid  
hi

conjectural backfire when  
a kite fails, strange feeling  
of dismay & hope, for there before  
one is the very clue to clearance.

ballast shift  
counters down line





elastic  
lines  
brakes  
pulse

tail kit?

composite drogue

Air Navigation Order (UK) ANO 489

50/100 ruleless or negligible end-on approach

75 60m ceiling

1111 clearance structure to vehicle



51cm clearance air field at any height

(UK)

14:3 a) ↑ in dim  
b) ≤ 100 spacing  
Rules of the Air Regs 1996



lights exceeding 60m small duplexer

lights exceeding 60m steady lights

lights aloft better as  
blinking due to power  
weight



some sort of downwind detector, to change light pattern

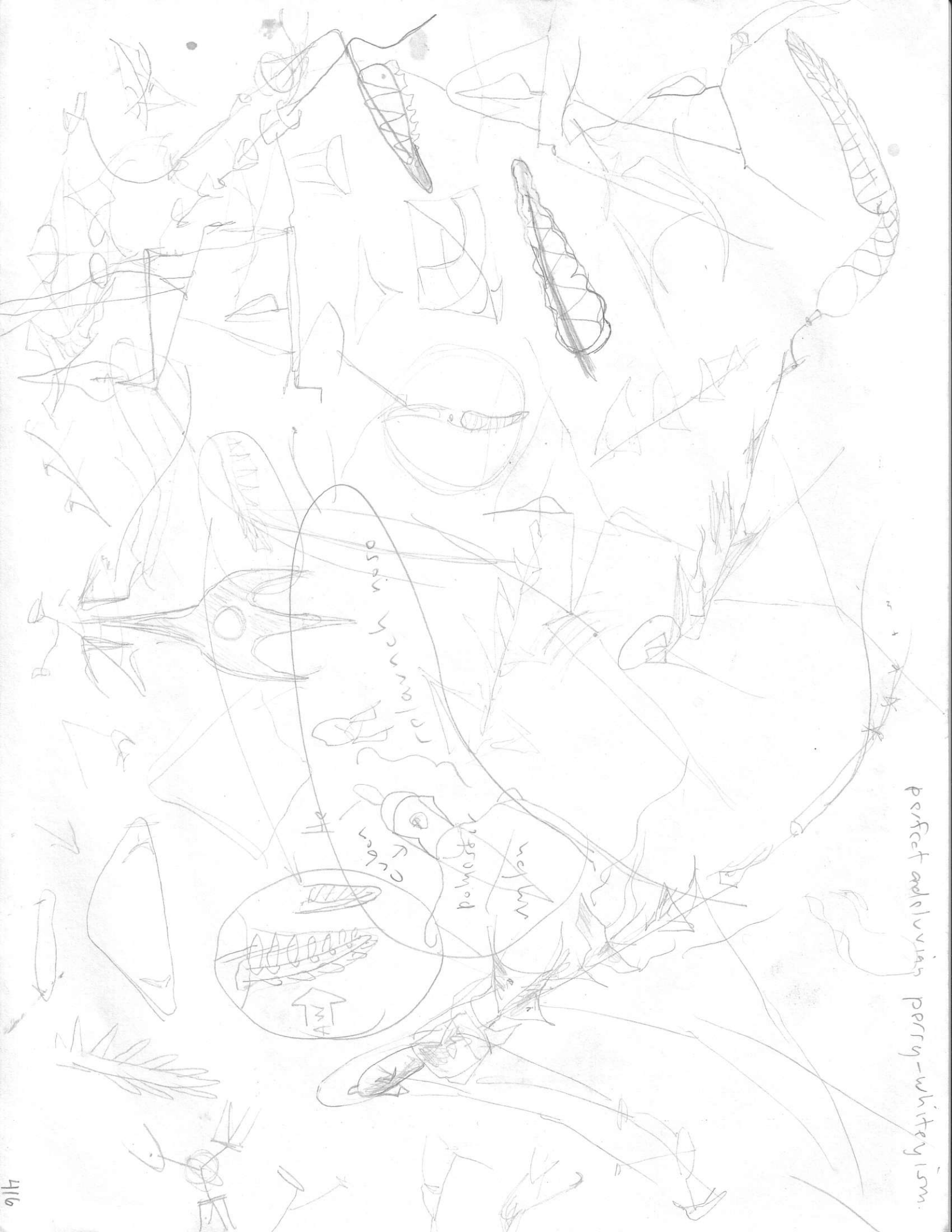
the court judge  
is good in

down justice  
Clarkian magic

some more  
red in  
Parker  
Fisher  
on landing then

parachute was found  
as a kite to be used  
as instantly as  
possible

sewers  
sewers



perfect adaluvian perry-whitelyism.

oson y  
123456789

123456789  
nclhr

clben



disarmament industry  
disarmament

fail safe  
fully inspectable  
swivel

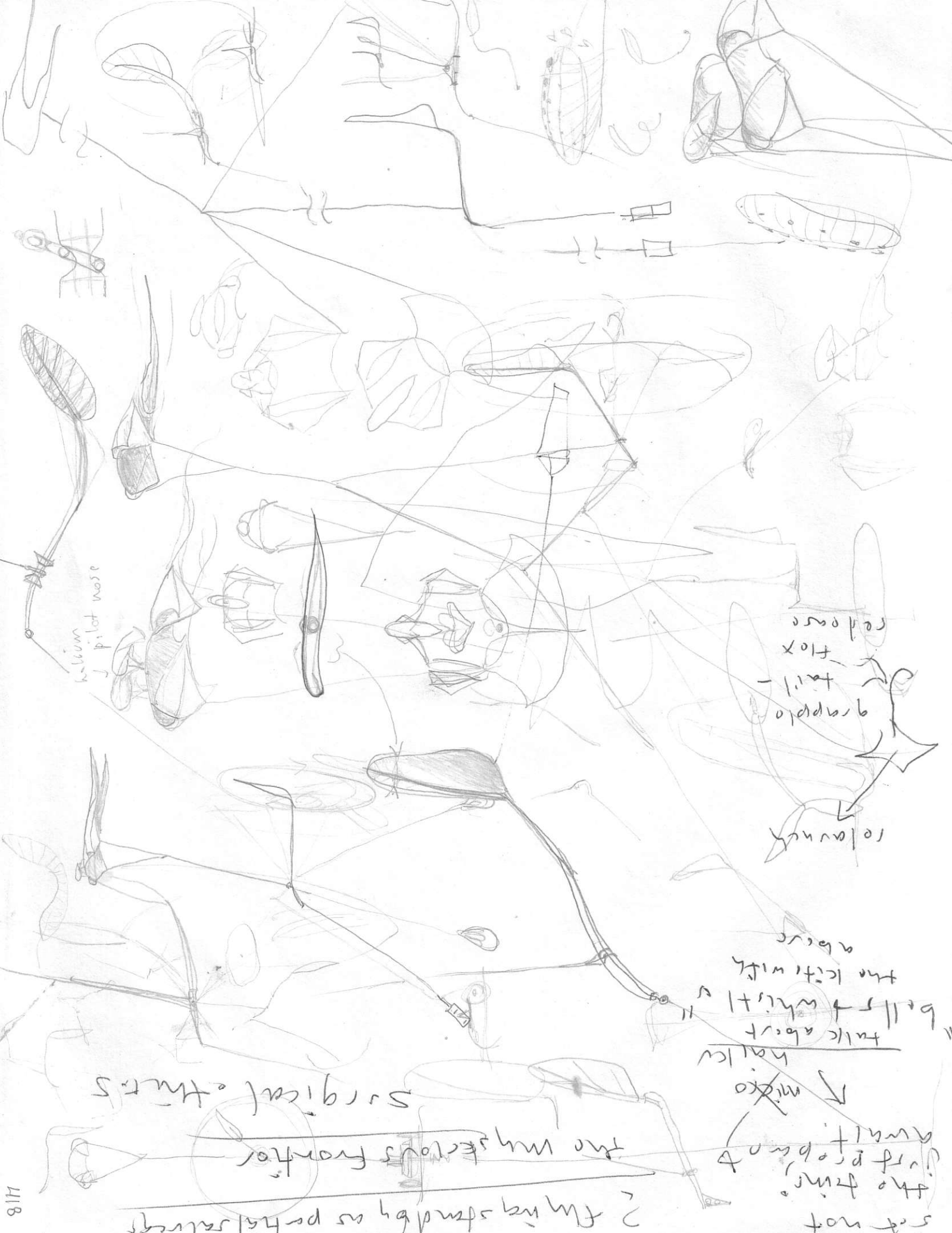
itself  
winds in  
down in  
unwinds in moderate

tension  
booster

angular  
wing  
angular ribbon

17x34





release

tail

tail

collar

above

the left with

balls + whitish

tail about 1/2 inch

halcyon

mixo

not the final part of the problem

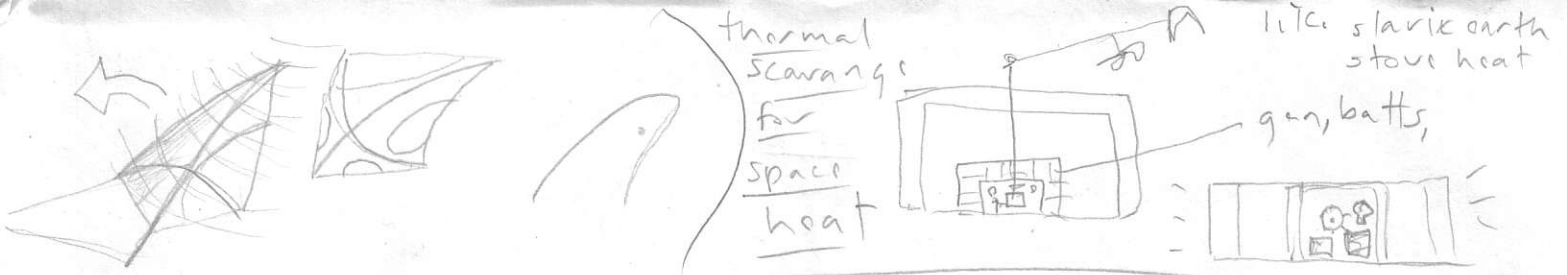
not

surgical sutures

the muscularis frontor

Flying standby as post-halcyon

calcium  
pilot nose



comic sustainability

Invasion of New England (say Hi to Mark)

- No New England Channel to slow us down

- loot AI Cores on the way, he won't mind

Beware of the Cyclone w/ de grad hilt envelopes (process service)

The Yellows (not green)

Now Yellow Journalism

- Perry Whitenism

- Neoliberal Eco fascism

