The "artificial leaf" prototipe
stereolitography
Iguzzini and Cloud9 ©patent

scale 1/1,
measures: 36 cm diameter and 6 cm hight.

materials: stereolitography, curved glass surface,
photovoltaid cellule, cpu, battery and 3 leds (RGB)

It works with 220 volts power, european standard swight.

Model COMPACTversus 6KN

scale: 1/100
base: 56x58cm, translucent
(possible to be illuminated from below)
height 43cm

materials:
white painted wood
nylon mesh
3000 green laser-cut plexyglass dots

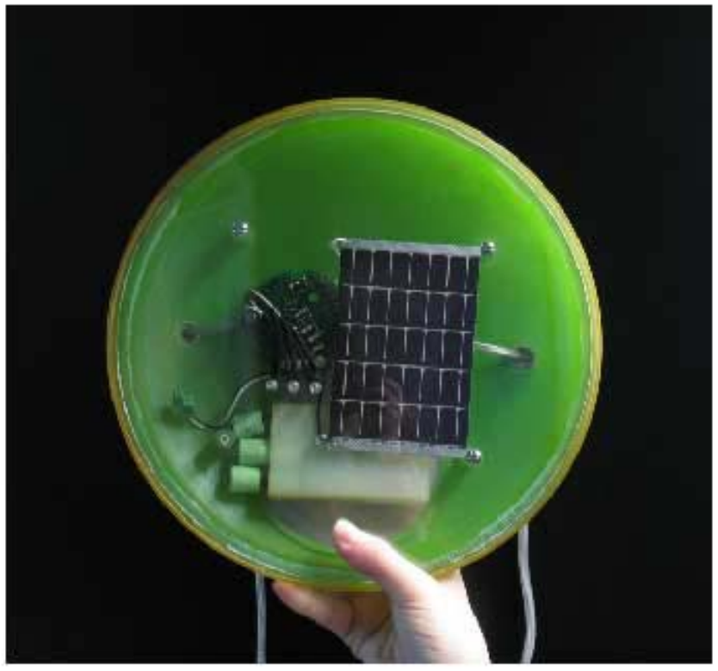
Model Metadrilat Prints
scale 1/ 200
base 30x45cm, translucent
(possibility to illuminate it from below)
height 35cm

materials:
A series of color digital prints on plexiglass and foam.

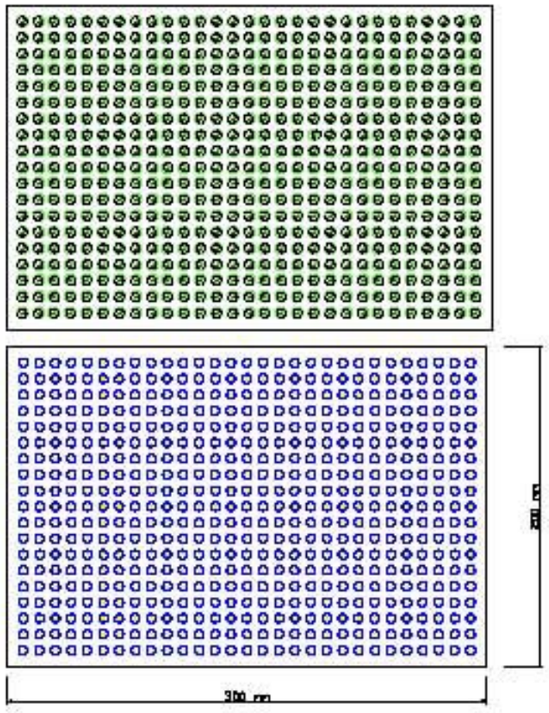
Model "Energy Skin"
(under construction, will be finished by december)

scale: 1/50
dimensions: 113 cm by 140 cm
height: 105cm
base: larger than 120 cm by 120 cm in plantranslucent plexi-glass
(possibility to illuminate it from below)

Materials:
compact building made of translucent plexi glass
stainless steel metal skin,
and real LEDs working in a random way, day light and night light,
programed by James Clar, light designer.
technik used: stereolitography, working LEDs,



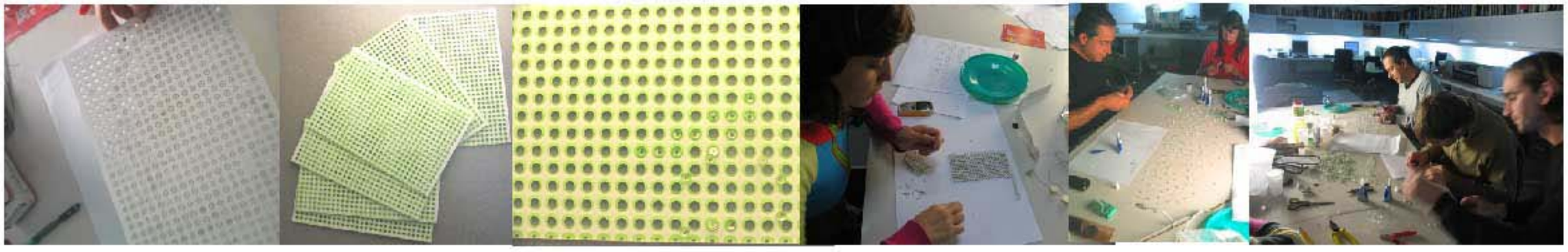
HOJA PROTOTIPO
E:1/1



6000 HOJAS
12 PLANCHAS 12 GRILL
551 DISCOS 551 CIRCLE
METACRILATO DE ESPESOR 2MM METHACRILATE,THIN 2 MM
CÍRCULOS AZULES CORTE EXTERIOR BLUE CRICLES CUTTING OUTLER LAYER
PARAMETERS SKIN:

ARTIFICIAL LEAVES 5.000
DIAMETER 25 CM
RESOLUTION WIRED MESH 57 CM
SURFACE SKIN 3000 M2
RESOLUTION LEAVES (AVERAGE) 3.1/M2
PRODUCED SHADOW 15%

HOJA MAQUETA LEAVE MODEL
E: 1/50

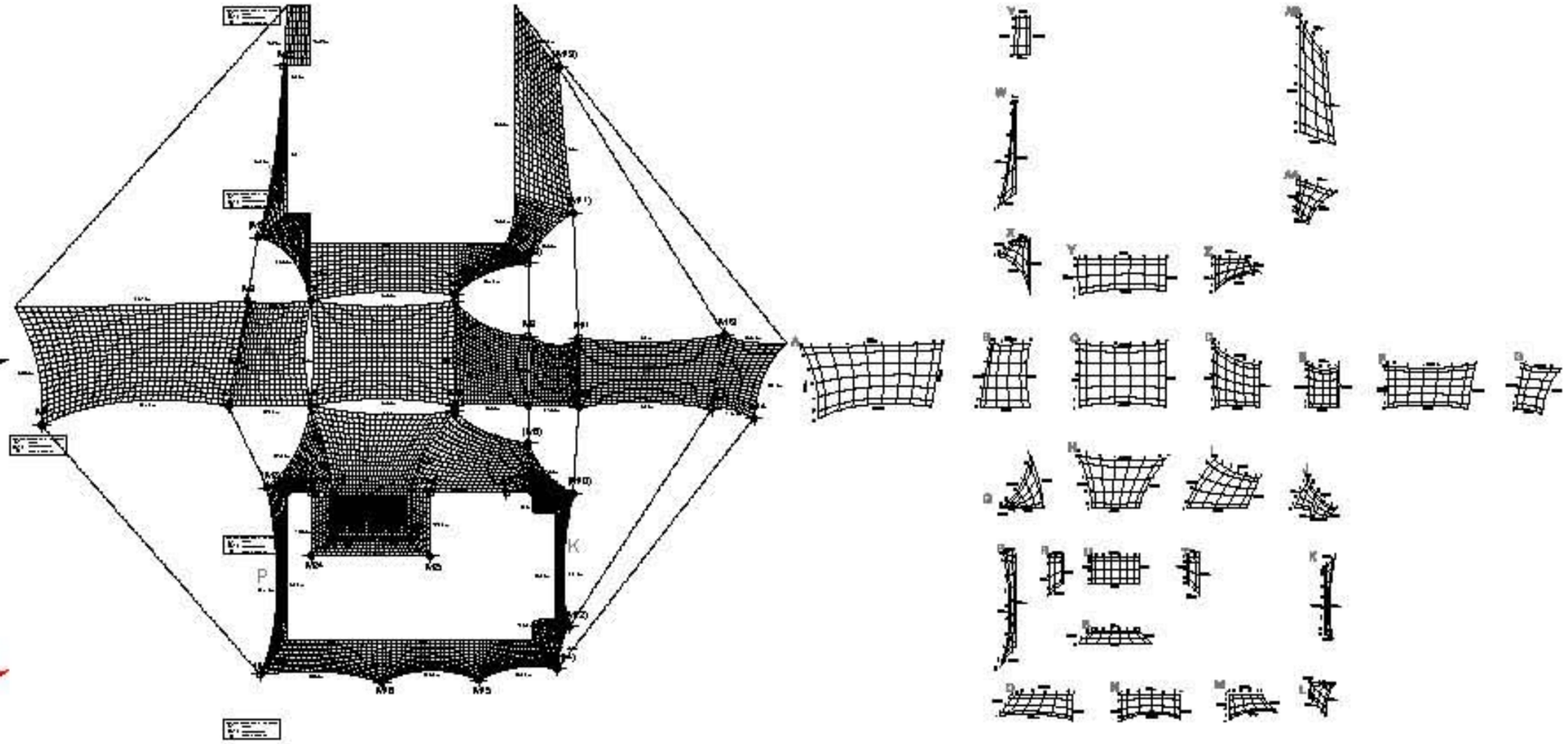


IMPRESIÓN DE LAS HOJAS A ESCALA 1/50
CORTE DE LAS HOJAS EN MÁQUINA LASER, 6000 HOJAS
FABRICACIÓN DE LAS HOJAS: 1. JUNTA PARA LA COLOCACIÓN DEL ENGANCHE. 2. FABRICACCIÓN DE LA PIEZA UNION-SOPORTE
PROCESSO DE PRODUCCIÓN DE HOJAS, UNIÓN PEGADA ENTRE EL ENGANCHE Y LA HOJA

FABRICACIÓN DE 6000 HOJAS: 1. JUNTA PARA LA COLOCACIÓN DEL ENGANCHE. 2. FABRICACCIÓN DE LA PIEZA UNION-SOPORTE
PROCESSO DE PRODUCCIÓN DE HOJAS, UNIÓN PEGADA ENTRE EL ENGANCHE Y LA HOJA



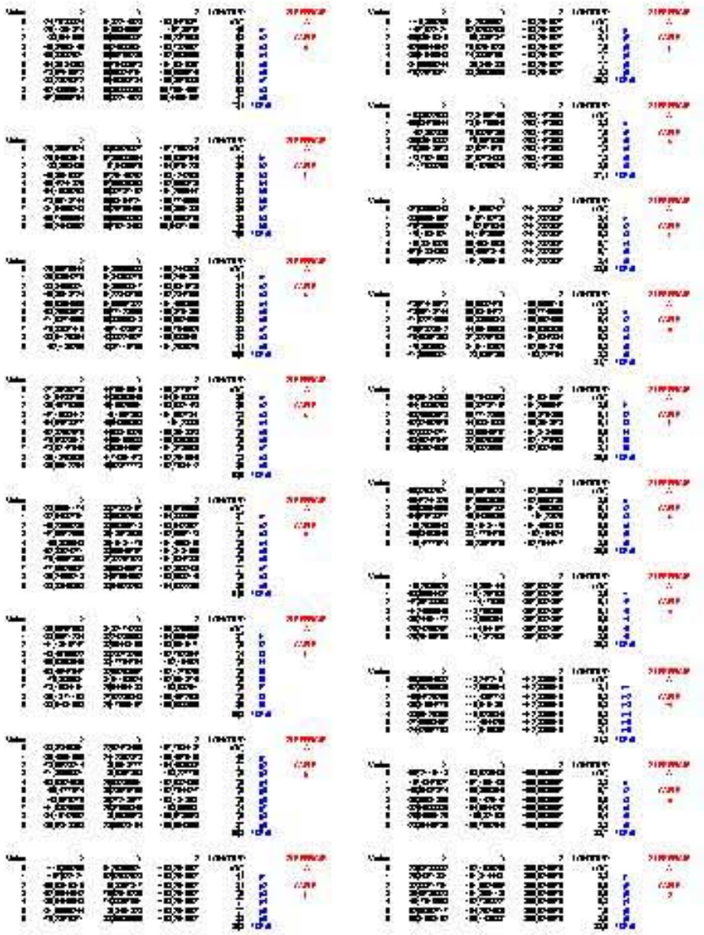

MONTAR HOJAS EN LA MALLA DEL COMPACT
FABRICACIÓN DE HOJAS
CORTE DE LO SOBRANTE EN LAS PIEZAS DE ENGANCHE DE LAS HOJAS
INSERTING LEAVES ON THE MODEL
MANUFACTURATION OF LEAVES
CUTTING THE SPARE PIECES OF THE LEAVES

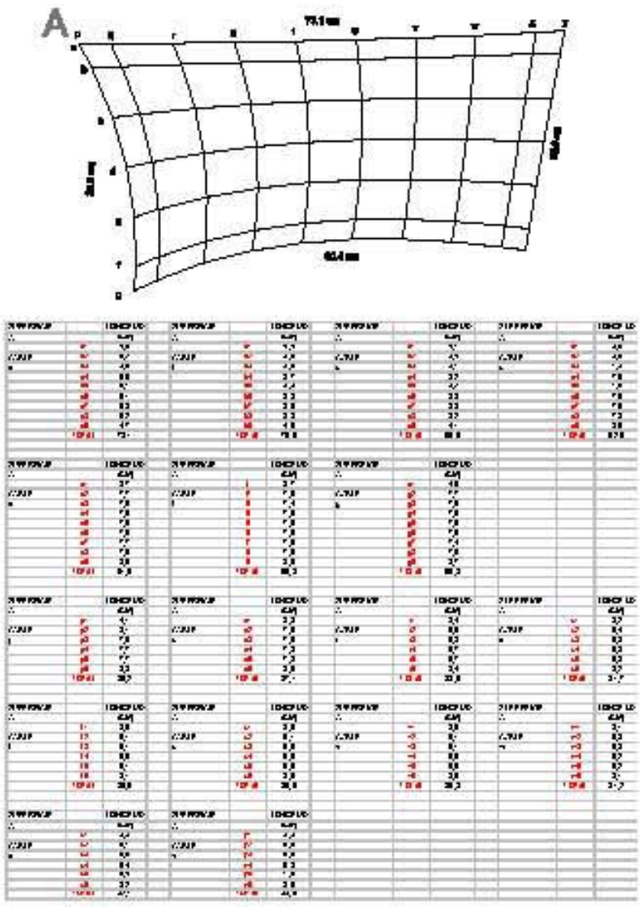


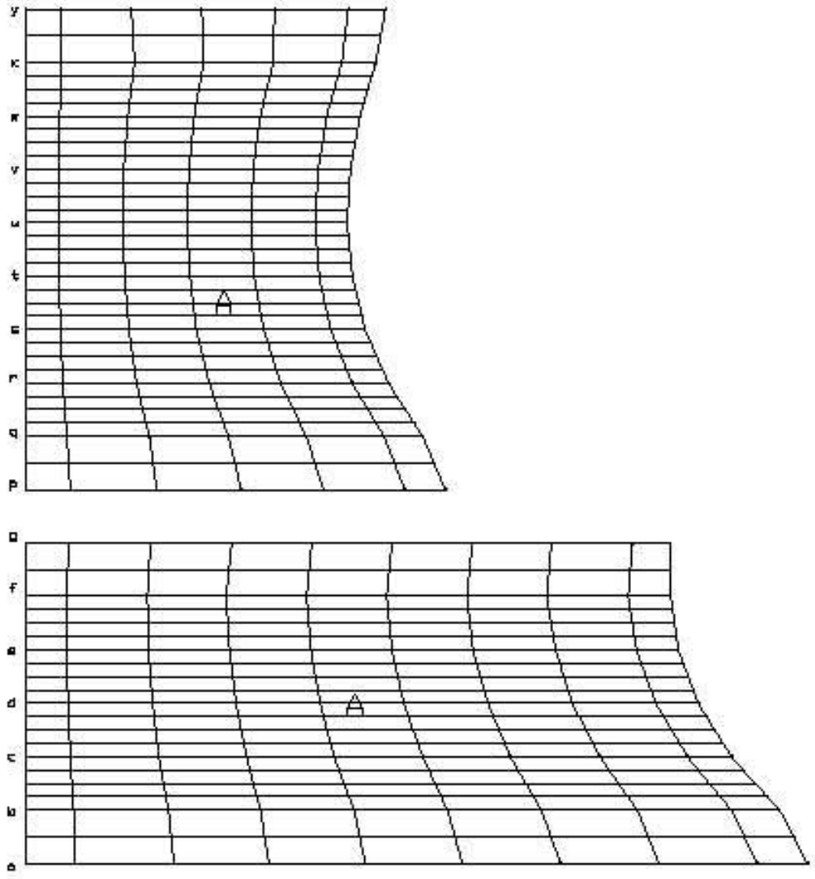
MALLA DESPLEGADA

28 DIFERENTES CAMPOS EN SU LONGITUD REAL DESPLEGADOS CON SUS MEDIDAS REALES

DIBUJOS-PATRONES PARA LA EJECUCIÓN DE LA MAQUETA A E. 1/50







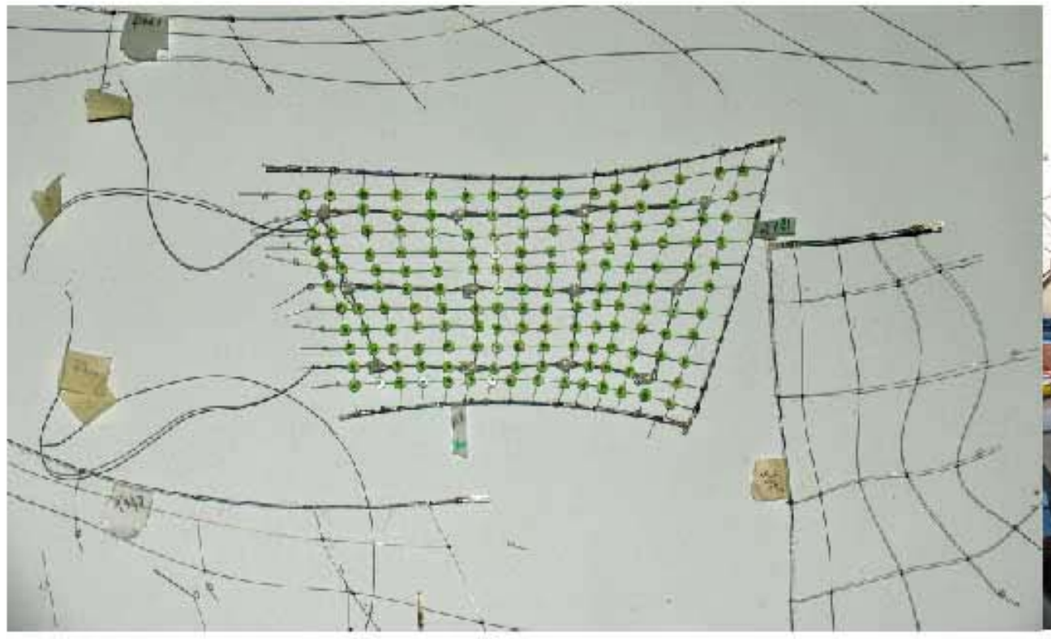
Excel de todas los distintos cables que generan las 28 mallas,8500 cables en su longitud real
ejemplo malla tipo, con la impresión de los cables en tamaño real para la ejecución de los campos en la maqueta

IMPRESIONES DE LOS CAMPOS PATRONES PARA EL CORTE DE TODOS LOS CABLES EN SU TAMAÑO REAL
CORTE DE LOS CABLES CON SU REMATE DE UNIÓN
MARCADO DE TODAS LAS UNIONES PARA LA SOLDADURA POSTERIOR
SOLDADO DE LAS MALLAS A PARTIR DE LOS PATRONES Y DE LAS MARCAS-UNION
SOLDADO DE LOS CABLES ESTRUCTURALES PERIMETRALES

PRINTING THE PATTERNS OF THE DIFERENT FRAMES FOR CUTTING ALL THE WIRES IN THE REAL LENGTH
CREATING ALL THE MARKS FOR THE POST SOLDERED JOINTS
SOLDERING OF THE FRAMES

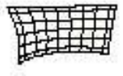
COLOCACIÓN DE LAS 6000 HOJAS Y 500 LED LOS 28 CAMPOS DE CABLES
INSERTING THE 6000 LEAVES AND 500 LEDS ON THE 28TH FRAMES

09 MALLAS CON HOJAS/FRAMES WITH LEAVES



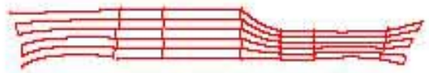
COLOCACIÓN DE LAS 6000 HOJAS EN LOS 28 CAMPOS
AJUSTE DE LA MALLA CON LA INSERCIÓN DE LAS HOJAS Y LOS CABLES INTERMEDIOS
6000 LEAVES ON THE 28TH FRAMES
TIGHTENING OF THE FRAME WITH THE INSERTATION OF THE LEAVES AND THE SECOND WIRES

10 MALLAS CON HOJAS/FRAMES WITH LEAVES

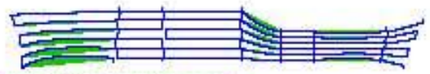


6 flexi glass discs: dia. 6mm, height 9mm

6 RGB LED 5 dia: 6mm, height 6mm



4 red: 0,6mm grey insulated cable

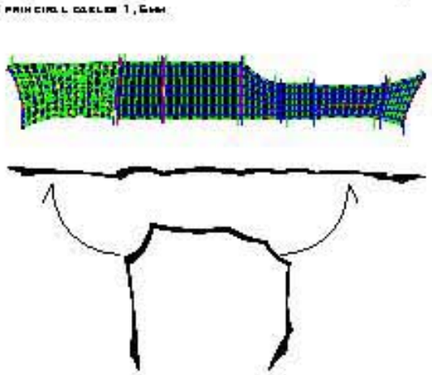


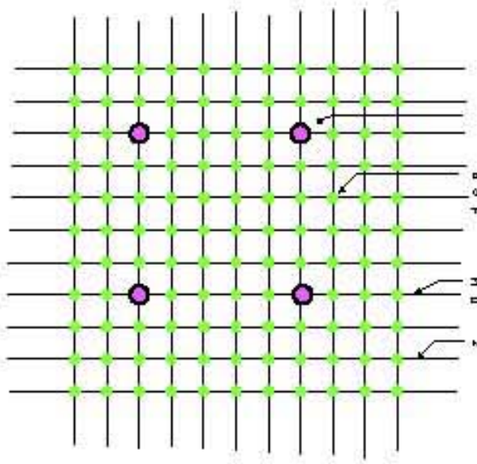
3 blue: 0,6mm grey insulated cable

8 green: 0,6mm grey insulated cable

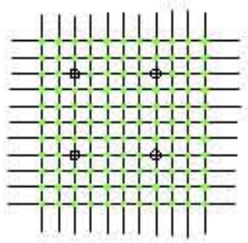
1 ground mesh: 0,1 mm wire

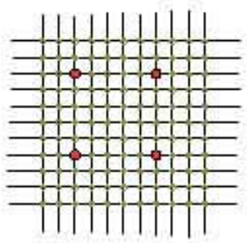
8 principal cables 1,6mm

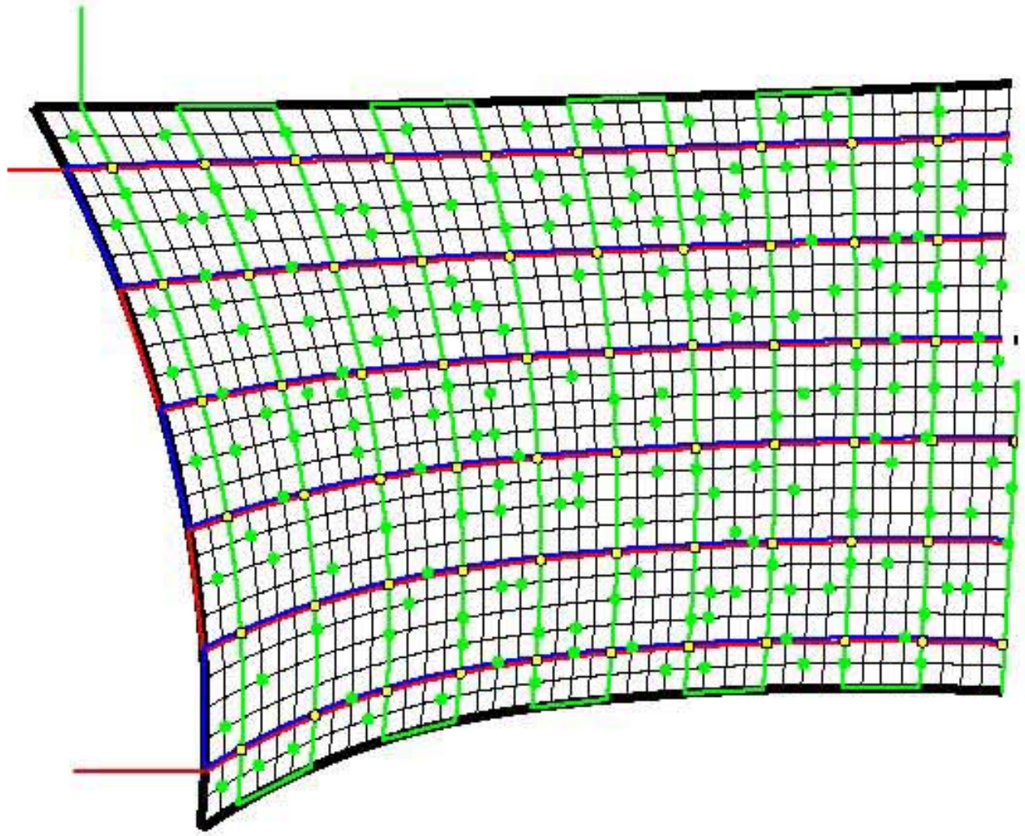




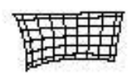
Resolution 1: (low)
important: a lot of leaves
- secondary structure
- 5000 flexi glass discs
mounted on nylon mesh

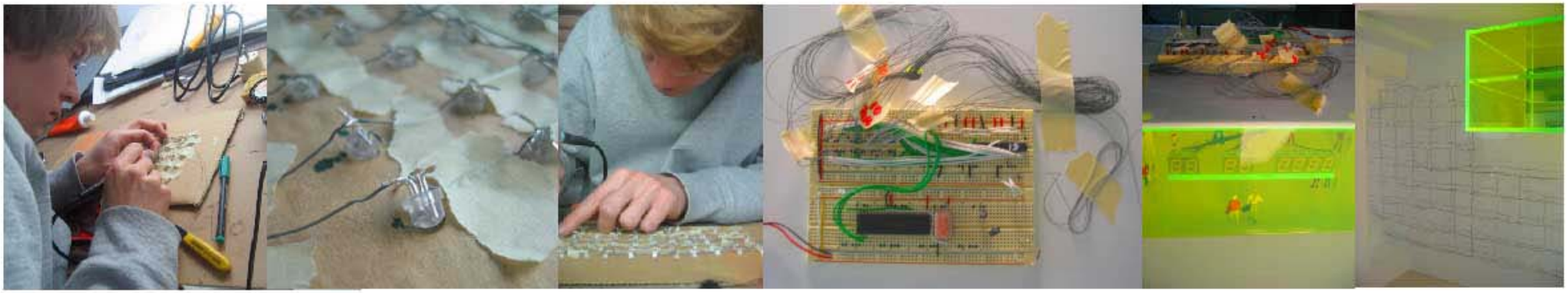






11 MALLAS CON HOJAS/FRAMES WITH LEAVES

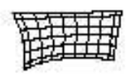




COLOCACIÓN DE LOS LED EN LA MALLA SEGÚN LA DISPOSICIÓN DE LOS DISTINTOS CABLES EN LOS CAMPOS
SOLDADO DE LAS HOJAS
PROGRAMADOR DE LAS CUERDAS DE GUITARRA
PROGRAMACIÓN DEL CALENDARIO ELECTRÓNICO

INSERTATION OF THE LED ON THE FRAME ACCORDING TO THE DIRECTION OF THE WIRES
WELDING THE WIRES
PROGRAMMING THE ELECTRONIC TIME TABLE

12 CAMPOS CON LUZ/LIGHTING FRAME

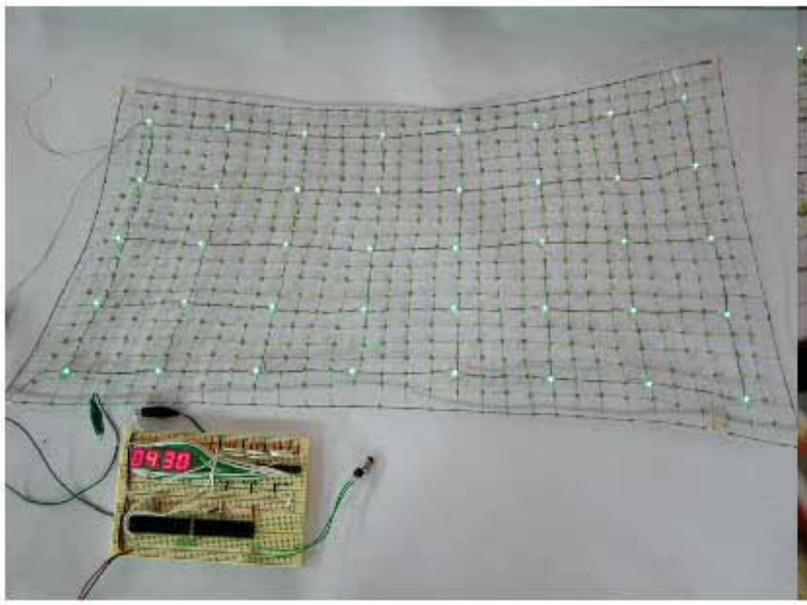


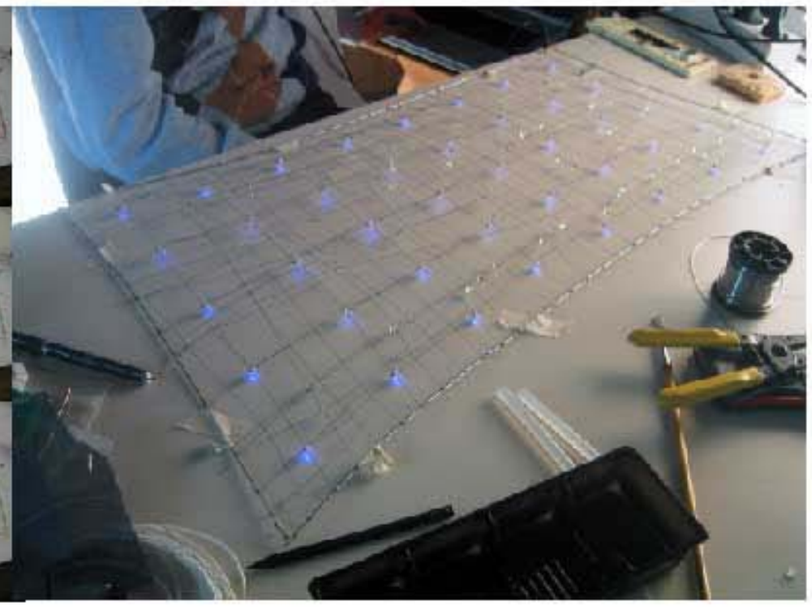
programación de los campos de led en el compact

James Clar received his Masters from New York University's Interactive Telecommunication's Program concentrating on information display. Blending art theory and design, James' innovative objects and installations transmit visual information through light medium. He was a resident artist at new media collective Eyebeam Atelier of NYC as well as working at Benetton's Fabrica research facility in Italy. His work has been shown at various galleries and museums including; New Museum of Contemporary Arts NYC, The Chelsea Art Museum, 8th Japan Media Arts Festival, and the Milan Triennial. He has been interviewed and his work has been featured in various publications such as Tokion, Axis, Azure, Samsung's DigitAll, IdN, as well as being awarded the 2004 Design Distinction Award from I.D. Magazine's Annual Design Review.

James Clar is available for consultation, design, and development of products and installations: James@JamesClar.com

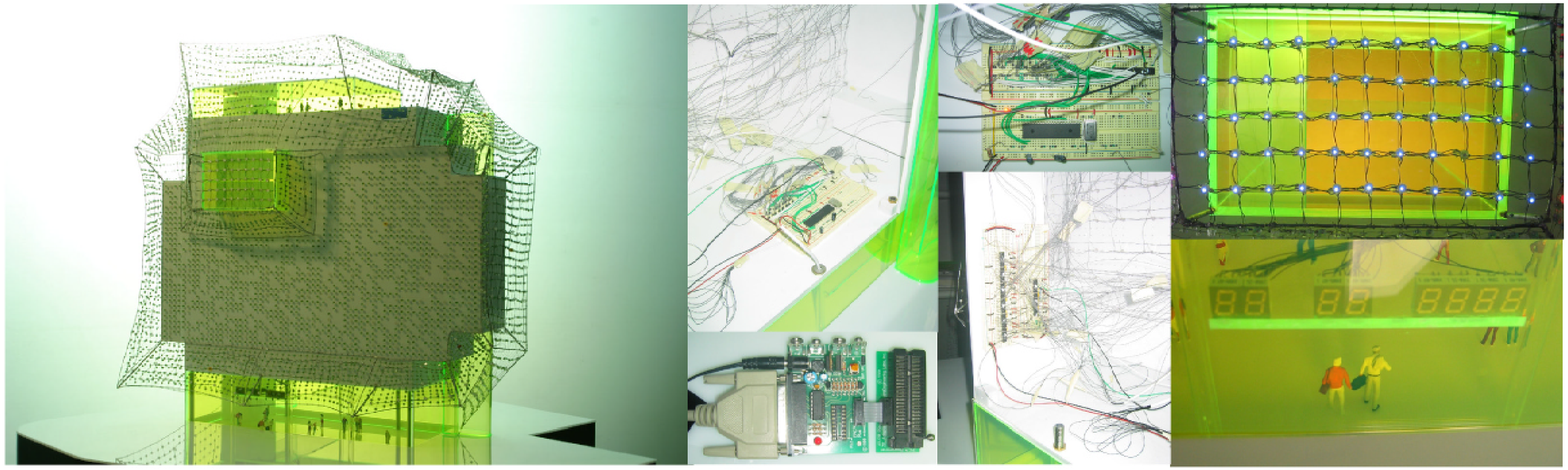
13 campos con luz/LIGHTING FRAME



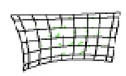
PROGRAMACIÓN DE UN CAMPO TIPO CON LED
ESTUDIO DE LAS VARIACIONES DE COLORES, CON LA MISMA INTENSIDAD EN LOS 28 CAMPOS DE LED
PROGRAMMING ONE OF THE FRAMES WITH LED
STUDIO OF THE COLORS VARIATIONS, SAME INTENSITIVE IN ALL THE 28 TH FRAMES

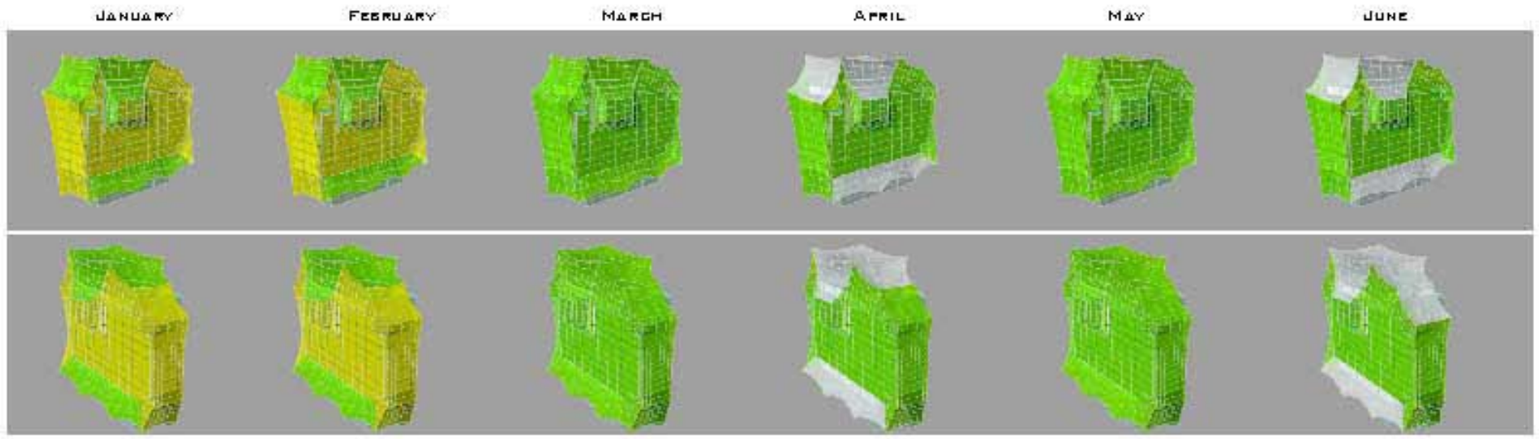
14 CAMPOS CON LUZ/LIGHTING FRAME



INTERIOR DEL COMPACT CON EL PROGRAMADOR, LA FUENTE DE TOCOS LOS CIRCUITOS QUE SUMINISTRAN ENERGÍA A LOS 500 LED, DISTRIBUIDOS POR LOS 25 CAMPOS CONTENEDORES DE 6000 HOJAS
PROGRAMACIÓN DEL CALENDARIO ELECTRÓLICO, COMO PUNTO DE INFORMACIÓN DE LOS CAMBIOS DE TONOS EN LA PIEL DEL ARBOL A LO LARGO DE LOS 12 MESES DEL AÑO
AL IGUAL QUE LOS ÁLAMOS VAN CAMBIANDO SUS TONALIDADES EN LAS DIFERENTES ESTACIONES, LA PIEL VA CAMBIANDO DE COLOR
The interior of the compact with the programmer, the central of all the elect circuits
programming of the electronic time table, this is the information point of the colour chanees during the year, as the skin of a tree.

15 CAMPOS CON LUZ/LIGHTING FRAME





surface	HIGNI	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X
field	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d	C°d
January	0,5270	0,5270	0,8147	0,8147	0,8147	0,9194	0,2581	0,2581	0,8147	0,5270	0,5270	0,5270	0,5270	0,8147	0,8147	0,8147	0,5270	0,5270	0,8886	0,5270	0,2581	0,5270	0,2581	0,2581	0,2581
February	0,5692	0,5692	0,7054	0,7054	0,7054	0,4911	0,9191	0,9191	0,7054	0,5692	0,5692	0,5692	0,5692	0,7054	0,7054	0,7054	0,5692	0,5692	0,7191	0,5692	0,9191	0,5692	0,9191	0,9191	0,9191
March	0,8038	0,8038	1,0589	1,0589	1,0589	0,8114	0,8243	0,8243	1,0589	0,8038	0,8038	0,8038	0,8038	1,0589	1,0589	1,0589	0,8038	0,8038	0,8772	0,8038	0,8243	0,8038	0,8243	0,8243	0,8243
April	0,7519	0,7519	#UTSZ	#UTSZ	#UTSZ	0,9243	0,689	0,689	#UTSZ	0,7519	0,7519	0,7519	0,7519	#UTSZ	#UTSZ	#UTSZ	0,7519	0,7519	0,7504	0,7519	0,689	0,7519	0,689	0,689	0,689
May	0,8385	0,8385	1,058	1,058	1,058	0,9525	0,7203	0,7203	1,058	0,8385	0,8385	0,8385	0,8385	1,058	1,058	1,058	0,8385	0,8385	0,8449	0,8385	0,7203	0,8385	0,7203	0,7203	0,7203
June	0,8074	0,8074	#JZZ	#JZZ	#JZZ	#ZY#3	0,884	0,884	#JZZ	0,8074	0,8074	0,8074	0,8074	#JZZ	#JZZ	#JZZ	0,8074	0,8074	0,8152	0,8074	0,884	0,8074	0,884	0,884	0,884
July	0,8947	0,8947	#JZZY	#JZZY	#JZZY	#/W#3	0,9569	0,9569	#JZZY	0,8947	0,8947	0,8947	0,8947	#JZZY	#JZZY	#JZZY	0,8947	0,8947	0,8581	0,8947	0,9569	0,8947	0,9569	0,9569	0,9569
August	0,8932	0,8932	#/W#3	#/W#3	#/W#3	#UT#6	0,799	0,799	#/W#3	0,8932	0,8932	0,8932	0,8932	#/W#3	#/W#3	#/W#3	0,8932	0,8932	0,7254	0,8932	0,799	0,8932	0,799	0,799	0,799
September	0,8950	0,8950	#/Z8#4	#/Z8#4	#/Z8#4	0,9888	0,8732	0,8732	#/Z8#4	0,8950	0,8950	0,8950	0,8950	#/Z8#4	#/Z8#4	#/Z8#4	0,8950	0,8950	0,8898	0,8950	0,8732	0,8950	0,8732	0,8732	0,8732
October	0,8150	0,8150	0,3518	0,3518	0,3518	0,5885	0,455	0,455	0,3518	0,8150	0,8150	0,8150	0,8150	0,3518	0,3518	0,3518	0,8150	0,8150	0,2035	0,8150	0,455	0,8150	0,455	0,455	0,455
November	0,5601	0,5601	0,8504	0,8504	0,8504	0,9333	0,9043	0,9043	0,8504	0,5601	0,5601	0,5601	0,5601	0,8504	0,8504	0,8504	0,5601	0,5601	0,723	0,5601	0,9043	0,5601	0,9043	0,9043	0,9043
December	0,4818	0,4818	0,5885	0,5885	0,5885	0,914	0,243	0,243	0,5885	0,4818	0,4818	0,4818	0,4818	0,5885	0,5885	0,5885	0,4818	0,4818	0,817	0,4818	0,243	0,4818	0,243	0,243	0,243

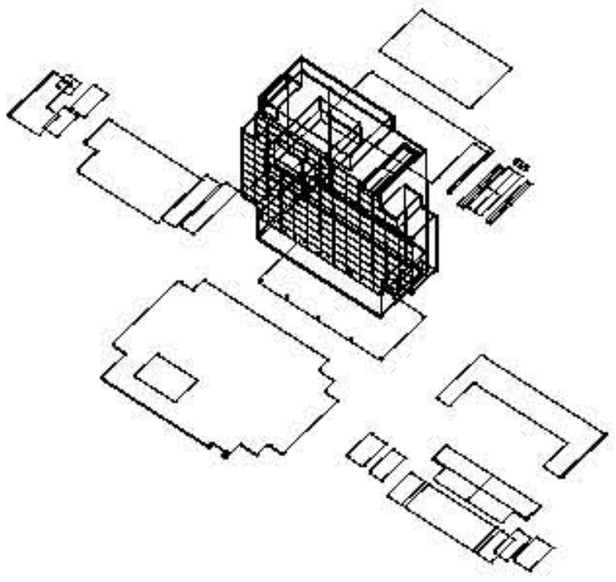
ESTUDIO DE LOS CAMBIOS CROMÁTICOS A LO LARGO DE LOS MESES EN FUNCIÓN DEL APROVECHAMIENTO ENERGÉTICO, Y EL BIENESTAR EN EL INTERIOR DEL HOTEL

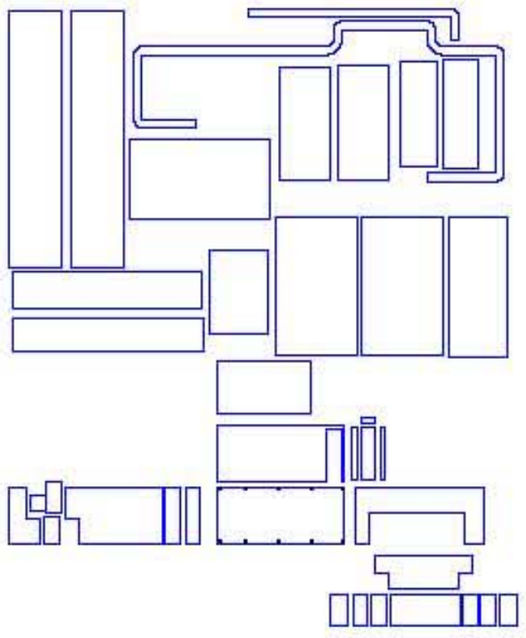
Inclination / azimut / field	south 0° 0° C1	east 60° 90° C2	60° C3	40° C4	25° C5	south 0° C6	25° C7	40° C8	60° C9	west 90° C10	east 90° 90° C11	60° C12	40° C13	25° C14	south 0° C15	25° C16	40° C17	60° C18	west 90° C19
January	0,44	0,3794	0,5196	0,6147	0,6939	0,7442	0,6939	0,6147	0,5196	0,3794	0,2951	0,4497	0,5196	0,6163	0,665	0,6163	0,5196	0,4497	0,2951
February	0,62	0,5311	0,636	0,7084	0,7503	0,8511	0,7503	0,7084	0,636	0,4811	0,3757	0,5446	0,6196	0,6544	0,7131	0,6544	0,6196	0,5446	0,3757
March	0,98	0,8114	0,9517	1,0583	1,1249	1,1551	1,1249	1,0583	0,9517	0,8114	0,6248	0,7626	0,8488	0,8567	0,8772	0,8567	0,8488	0,7626	0,6248
April	1,23	0,9248	1,04	1,0752	1,1072	1,1296	1,1072	1,0752	1,04	0,9248	0,683	0,7526	0,7513	0,7518	0,7504	0,7518	0,7513	0,7526	0,683
May	1,34	0,9925	1,049	1,056	1,0591	1,0622	1,0591	1,056	1,049	0,9925	0,7208	0,7378	0,6836	0,6659	0,6449	0,6659	0,6836	0,7378	0,7208
June	1,61	1,216	1,2408	1,22	1,18	1,1416	1,18	1,22	1,2408	1,216	0,884	0,8584	0,8074	0,7100	0,6152	0,7100	0,8074	0,8584	0,884
July	1,60	1,1814	1,231	1,2271	1,2062	1,1853	1,2062	1,2271	1,231	1,1814	0,8539	0,8508	0,8347	0,7473	0,6581	0,7473	0,8347	0,8508	0,8539
August	1,38	1,0746	1,1745	1,1915	1,1954	1,1876	1,1954	1,1915	1,1745	1,0746	0,799	0,847	0,8382	0,6541	0,7254	0,6541	0,8382	0,847	0,799
September	1,11	0,9008	1,0696	1,1288	1,184	1,2032	1,184	1,1288	1,0696	0,9008	0,6792	0,8064	0,8258	0,8605	0,8696	0,8605	0,8258	0,8094	0,6792
October	0,74	0,5911	0,7742	0,8516	0,9352	0,9832	0,9352	0,8516	0,7742	0,5911	0,455	0,6413	0,6790	0,7571	0,8005	0,7571	0,6790	0,6413	0,455
November	0,37	0,2888	0,4073	0,6584	0,7575	0,8152	0,7575	0,6584	0,4073	0,2888	0,2043	0,4603	0,6097	0,6655	0,728	0,6655	0,6097	0,4603	0,2043
December	0,35	0,214	0,4073	0,5743	0,6263	0,6782	0,6263	0,5743	0,4073	0,214	0,248	0,378	0,4436	0,5359	0,617	0,4436	0,4436	0,378	0,248
corresponding surface	C,D	E	-	H2 L2, M,N O, P1	-	-	-	B	-	-	F,G,T	-	H1, I,J K, L1, P2 Q, U, S FRONT	-	R	-	A	-	V, W, X
surface	A	B	C	D	E	F	G	H	I	J	K	L	M	N					
corresponding field	C17	C8	C1	C1	C2	C11	C11	C13,C4	C13	C13	C13	C4,C13	C4	C4					
surface	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB					
corresponding field	C4	C4,C13	C13	C15	C13	C11	C13	C19	C19	C19	-	-	-	-					

1,053 R,G,B white
0,84 G,B cyan
0,834 R,B magenta
0,812 R,G yellow
0,455 B blue
0,384 G green
0,233 R red

PERFORMANCE ARCHITECTURE: ARCHITECTURE OF PARTICLES
WE ARE PRODUCING ARCHITECTURE OUT OF ENERGY AND ITS BALANCES.
3D SOFTWARE LIKE MAYA WORK WITH PARTICLES AND NATURE IMITATION.
THE DIGITAL SOFTWARE IS PROGRAMMED. MODELING FOLLOWS CERTAIN RULES OF BEHAVIOR LIKE PARTICLES, RULES OF RELATIONSHIPS, LINKS.
PARAMETERS AND ACCIDENTS ARE A CONTINUOUS PERFORMANCE OF PARTICLES.
PERFORMING LIFE IS RANDOM, CHAOTIC AND ACCIDENTAL.
OUR ARCHITECTURE TRIES TO EXPAND ITS LIMITS BY BRINGING THEM TOGETHER

17 CAMBIOS EN LAS ESTACIONES/CHANGES IN THE SEASON

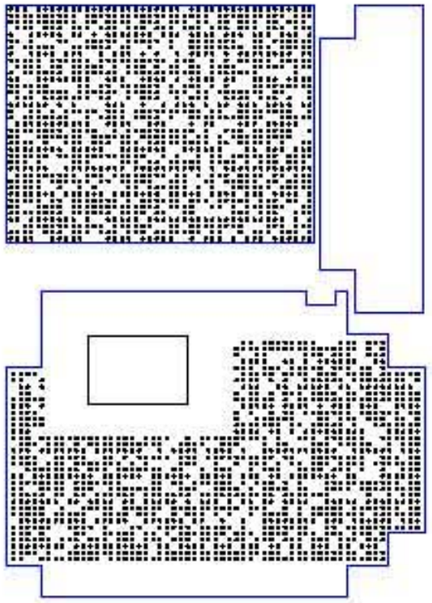


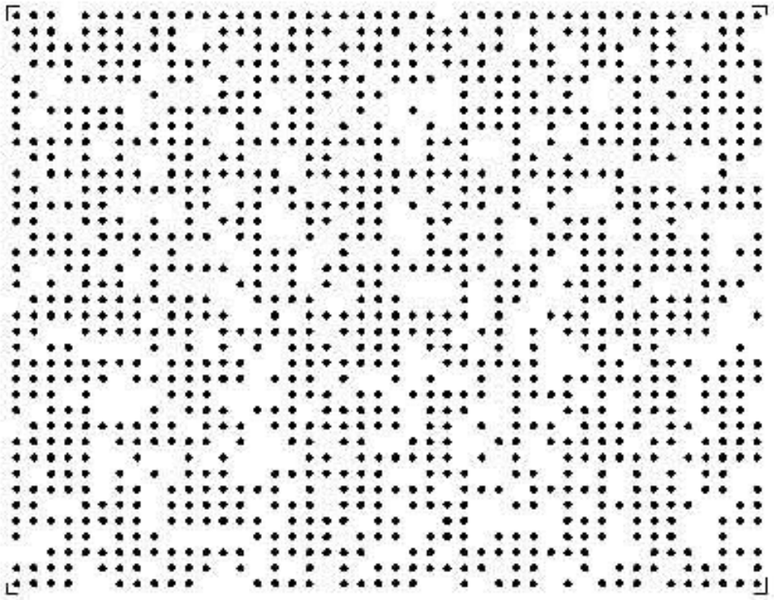


DESPIECE DEL COMPACT, PIEZAS DE METACRILATO BLANCO CON JUNTA DE SELLADO A BASE DE CLOROFORMO
FACHADA PRINCIPAL CON INSERCCIÓN DE 100 HOJAS Y 50 LED
QUARTERING OF THE COMPACT, METHACRYLATE WHITE PIECES WITH CLOROFORM JOINT
FIRST FACADE WITH 100 LEAVES AND 50 LEDS

18 CONSTRUCCION DE LA BASE/COMPACT

COLOCACIÓN DE LOS CABLES CON LAS MALLAS
ARREGLOS Y AJUSTES DE LAS HOJAS SOBRE LA MALLA





FACHADA ANTERIOR Y POSTERIOR DEL COMPACT
FACHADA PRINCIPAL CON INSERCCIÓN DE 1000 HOJAS Y 10 LED, LA FACHADA POSTERIOR
IMPRESIÓN EN VINILO DEL NEGATIVO EN COLOR NEGRO
ESTUDIO DE LA ESCALA HUMANA ANTE LAS HOJAS PARA LA DISPOSICIÓN DE LAS APERTURAS EN EL ALZADO FRONTAL

20 BASE CON HOJAS/COMPACT WITH LEAVES