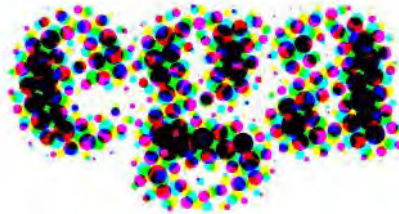


XXI Congreso Internacional de
Expresión Gráfica Arquitectónica
Universitat Politècnica de Catalunya

EXPOSICIÓN

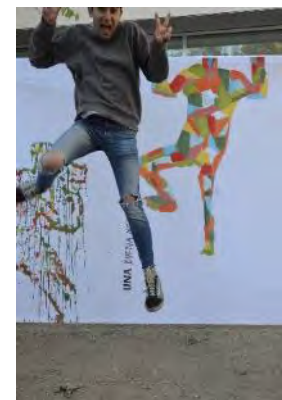
“ EXPERIENCIAS DOCENTES ”

*Muestra de actividades académicas impulsadas
por Departamentos y Escuelas*



Crónicas gráficas del habitar: cuerpo, color y vivencia espacial

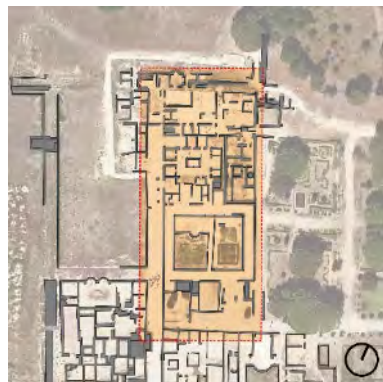
Renata Gomes
ETSAB / Universidad Politécnica de Cataluña



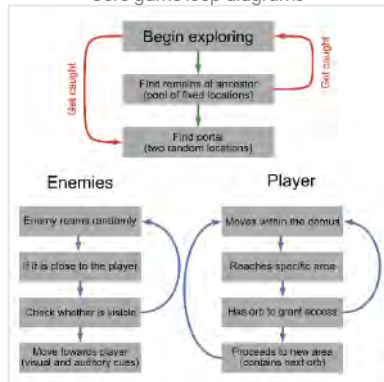


Innovative Tools To Digitize The East And West Cultural Heritage

Francesc Valls, Isidro Navarro, Albert Sánchez, Marilena Christodoulou
Universitat Politècnica de Catalunya



Core game loop diagrams



AI for NPCs behavior and navigation



Overlay for objects that grant protection



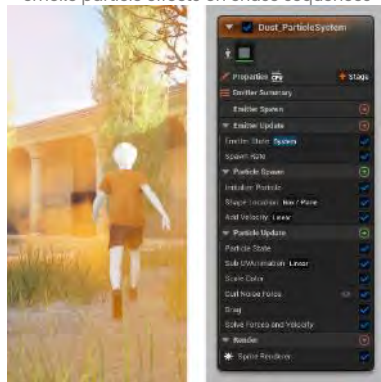
Custom procedural and vertex shaders



Dynamic lighting from camera perspective



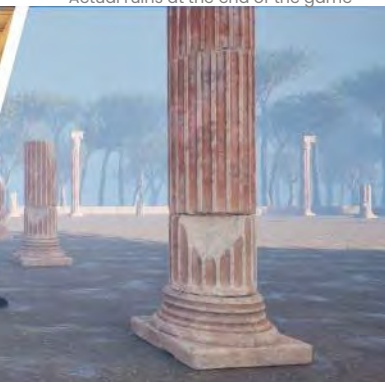
Smoke particle effects on chase sequences



Historical reconstruction during gameplay



Actual ruins at the end of the game

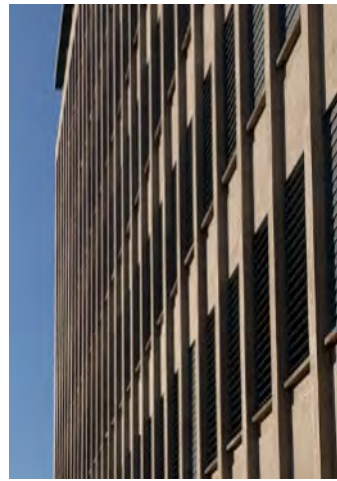
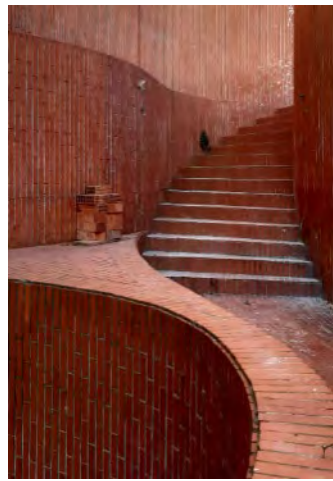
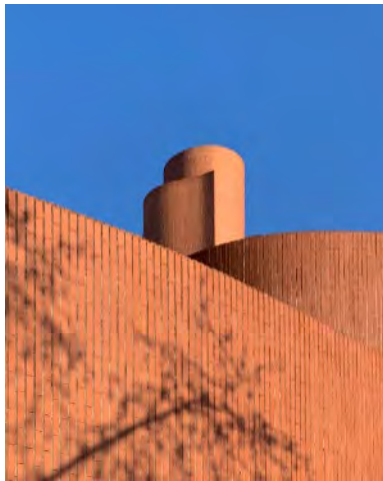


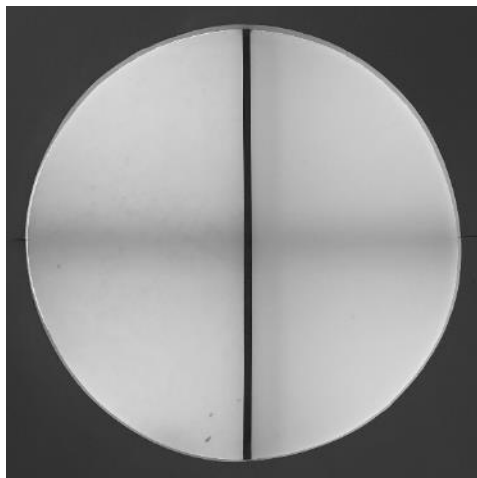
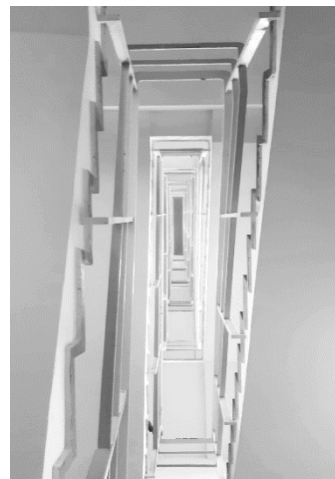
Co-funded by the Erasmus+ Programme of the European Union

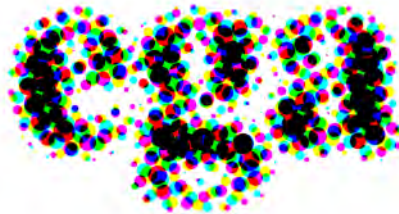


Mirar és projectar. Els arquitectes i la fotografia

Cristina Gastón Guirao, Judit Taberna Torres
ETSAB – UPC







Urban Notes

Bruno Seve, Melissa Pessoa, Gloria Carolina Fiallo Cardona, Zaida Muxi
ETSAB -UPC





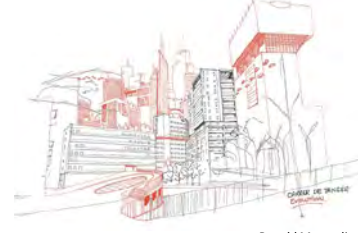
Asier Rivera



Mahiro Akiyama



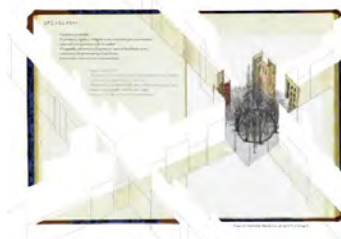
Anzu



Ronald Mucadie



Anggiolina Garcia



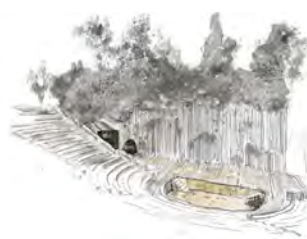
Davide Fabbro



Carlota de Haan



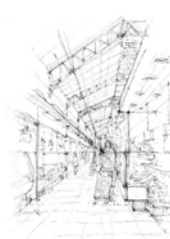
Andrea Díaz Navarro



Mariana Campello do Rêgo Valença



Jasmine Lorraine



David Piquer



Inés de Domingo



Letizia Bittasi



Alexandra Serdellic



Irem Akgul



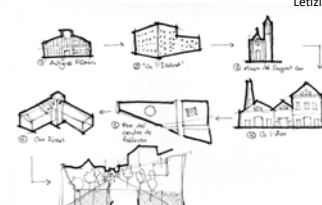
Belline Cossou



Jimena Anaya Martínez



Malika El Mahmudi



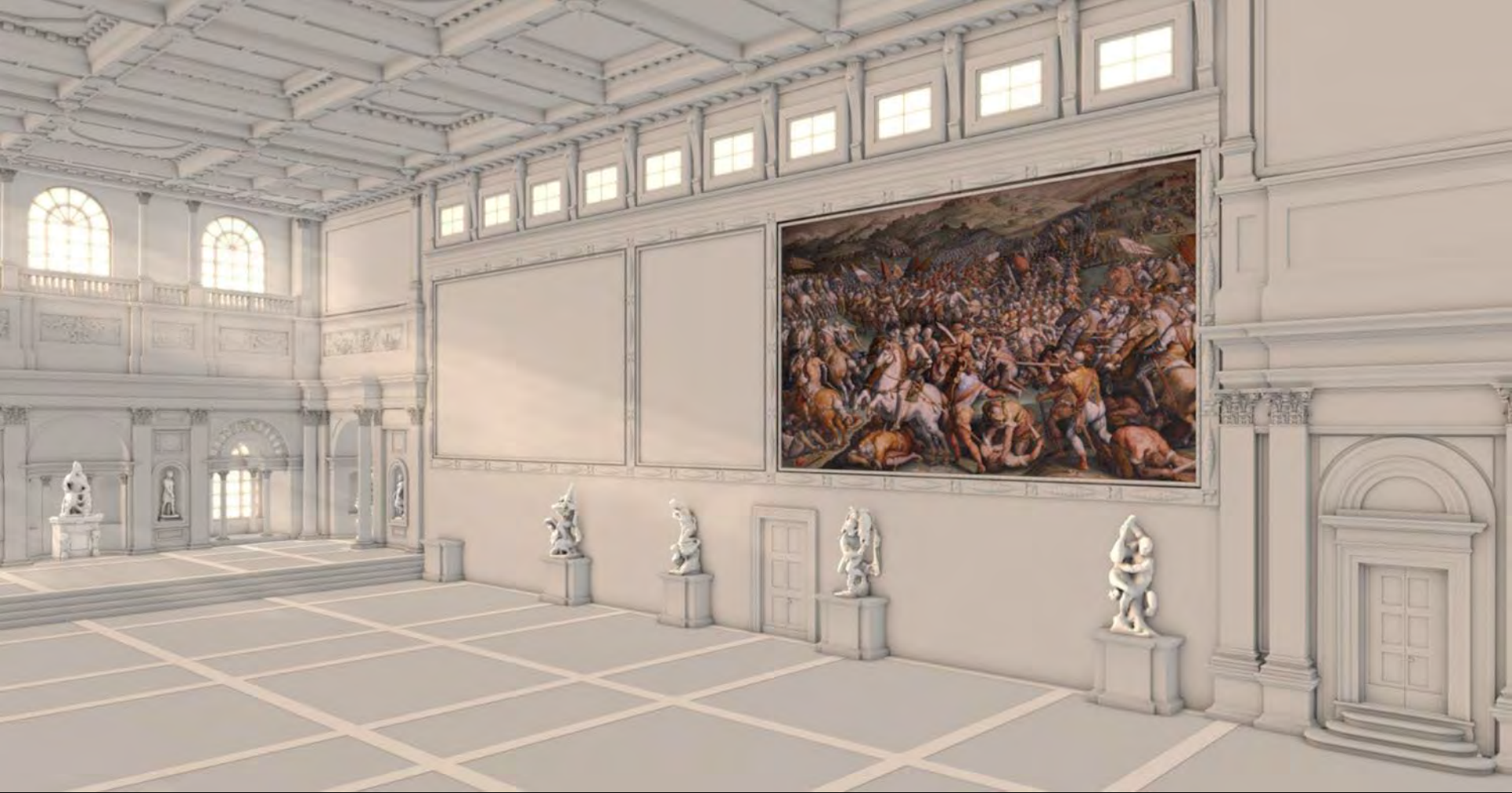
Letizia Bittasi



The Battle of Anghiari
Digital reconstruction of the ancient facies of the Salone dei Cinquecento in Palazzo Vecchio
and 3D animation of Leonardo's work

Alessandro Merlo
CHM_Lab | Dipartimento di Architettura, Università degli Studi di Firenze

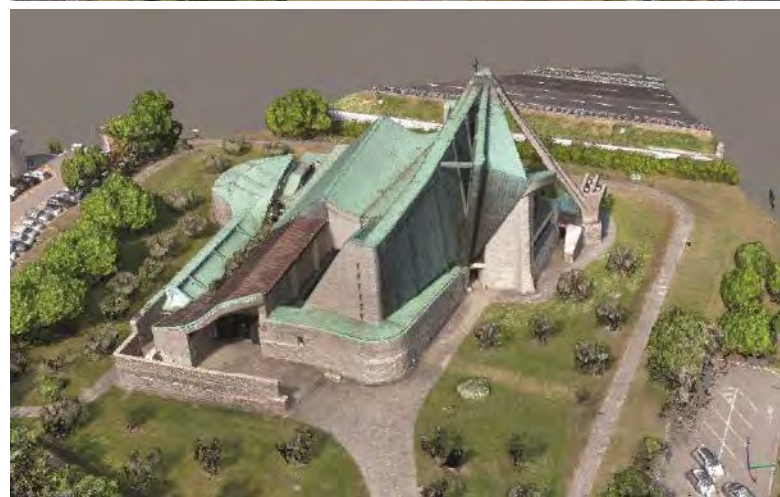
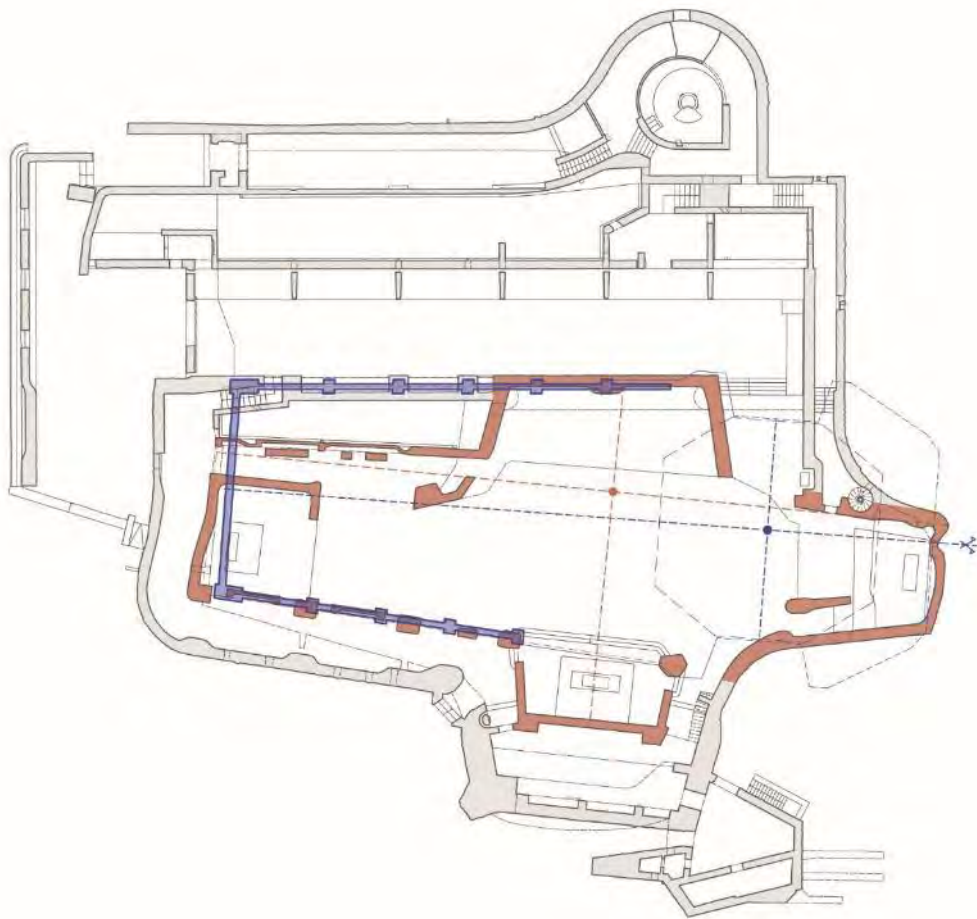






Church of San Giovanni Battista in Campi Bisenzio (Florence)
Morphometric and chromatic documentation for the development of a Conservation Plan

Alessandro Merlo
CHM_Lab | Dipartimento di Architettura, Università degli Studi di Firenze



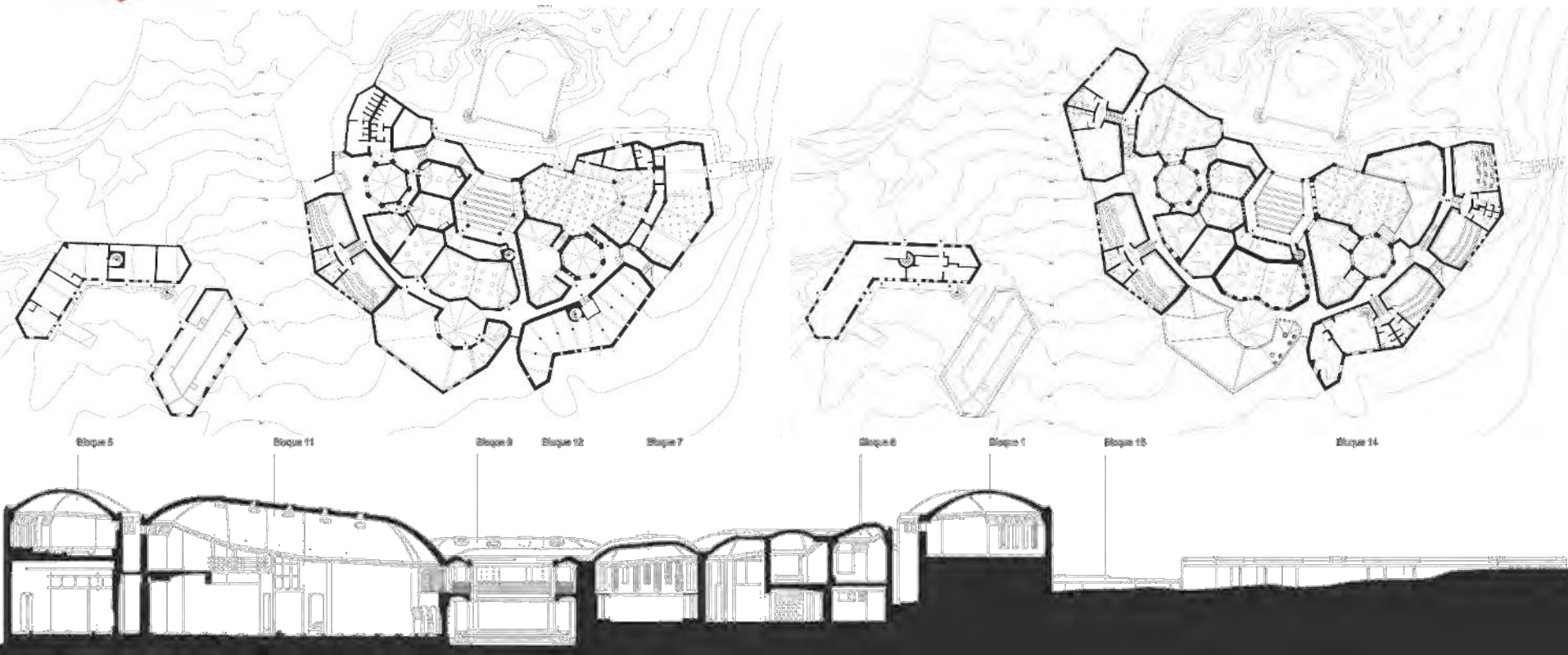
Church of San Giovanni Battista in Campi Bisenzio (Florence) – Alessandro Merlo – CHM_Lab | Dipartimento di Architettura, Università degli Studi di Firenze

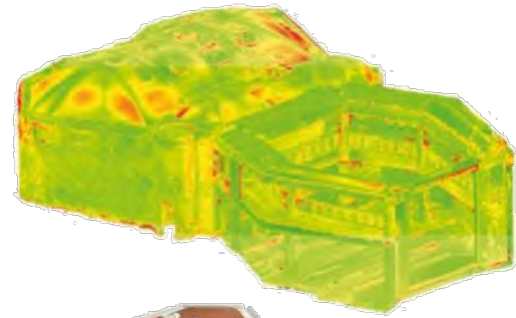




The international cooperation project Italy–Cuba ¡Que no baje el telón!

Alessandro Merlo
CHM_Lab | Dipartimento di Architettura, Università degli Studi di Firenze



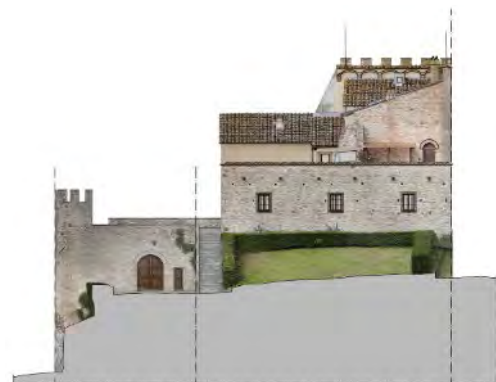
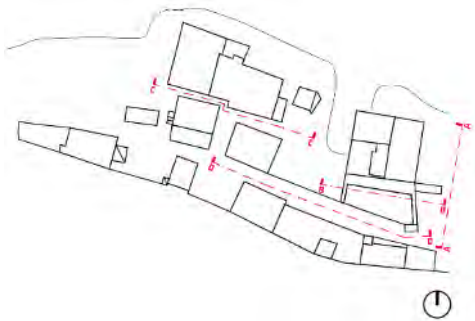




The castles of the Valdisieve

Alessandro Merlo

CHM_Lab | Dipartimento di Architettura, Università degli Studi di Firenze



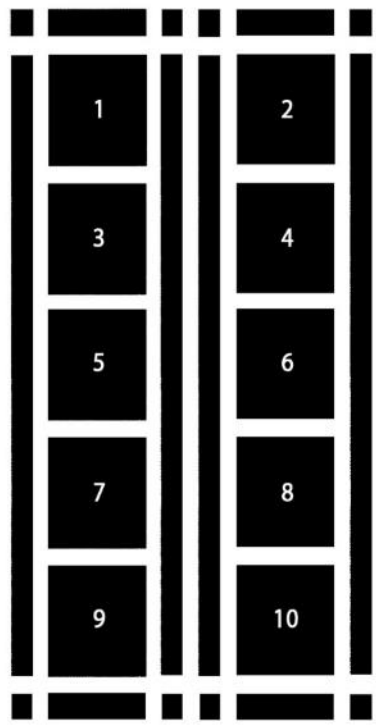




The panels of the Doors of Paradise by Lorenzo Ghiberti

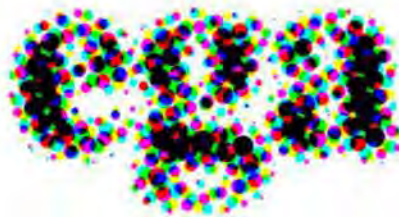
Alessandro Merlo

CHM_Lab | Dipartimento di Architettura, Università degli Studi di Firenze



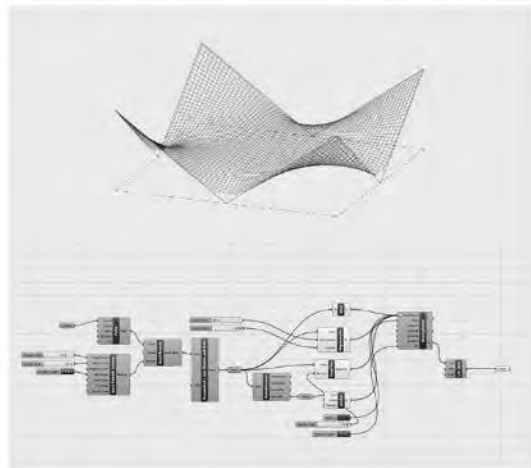
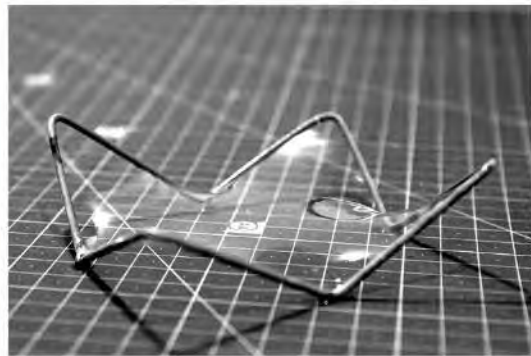
1. The Story of Adam and Eve
2. The Story of Cain and Abel
3. The Story of Noah
4. The Story of Abraham
5. The Story of Jacob and Esau
6. The Story of Joseph
7. The Story of Moses
8. The Story of Joshua
9. The Story of David
10. The Story of Solomon



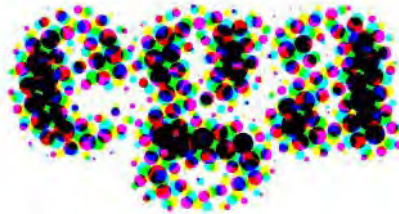


Taller de Formas Complejas, *Formfinding*

Mikel Mugica Insausti, Urtza Uriarte Otazua
Euskal Herriko Unibertsitatea / Universidad del País Vasco

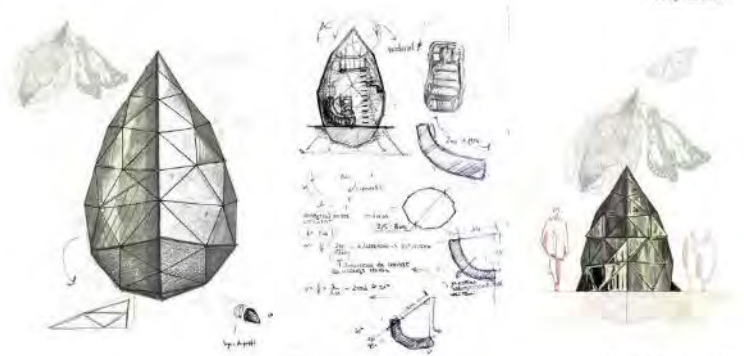




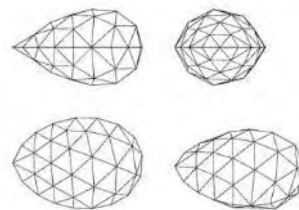


Tongji Construction Festival 2025

Ashley Garcia – Laia Sallent – Julia Steinberg – Lucía Bielsa – Gina Julià – Xingyu Kong – Omar Avellaneda
Universidad Politècnica de Catalunya



Design Analysis: CHRYSALIS FORM



Dynamic Geometry / Dihedral Views



Rationalization / Optimization

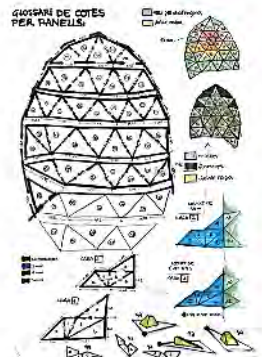


Final Geometry / Perspective view

PREFABRICATION AND SCALE MODEL

The optimization process allowed for the simplification of a ring pattern that was ordered by colors and numbers to generate a clear distribution in the assembly process.

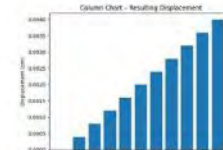
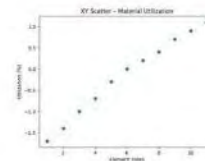
The approach to the prefabrication phase. To streamline the process, its created visual and color-coded guides to assist with assembly. Additionally, its prepared a detailed list of all the panels, outlining how each one should be constructed and positioned to minimize material waste.



Vector load analysis



Load analysis for panels

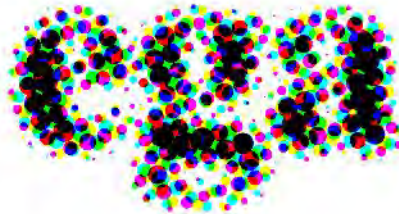


Manufacturing and Assembly



Manufacturing and Assembly



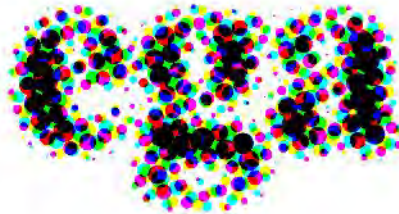


Aula expandida: Dibujar Madrid – Análisis de Formas II

Fátima Sarasola, Guadalupe Cantarero, Daniel Horcajada, Clara Maestre y Rocío Santo-Tomás
Universidad CEU San Pablo, Madrid

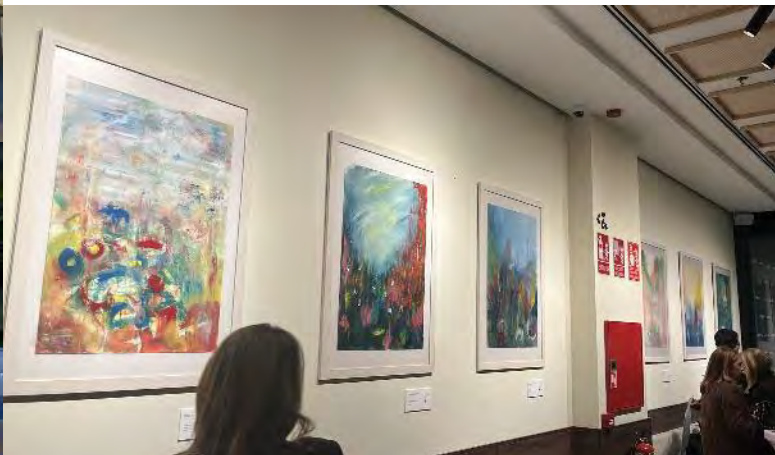
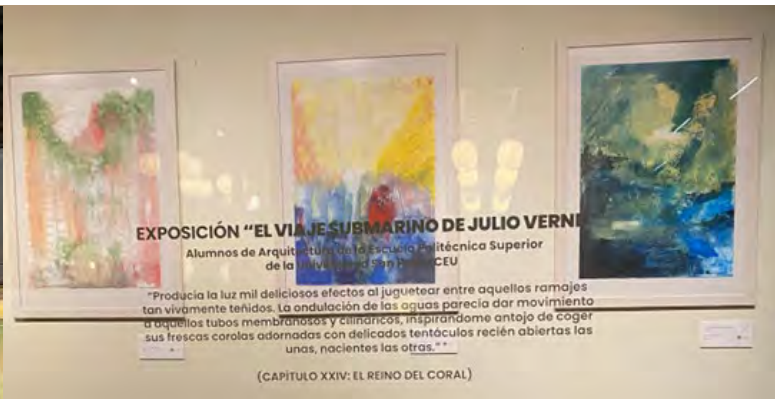


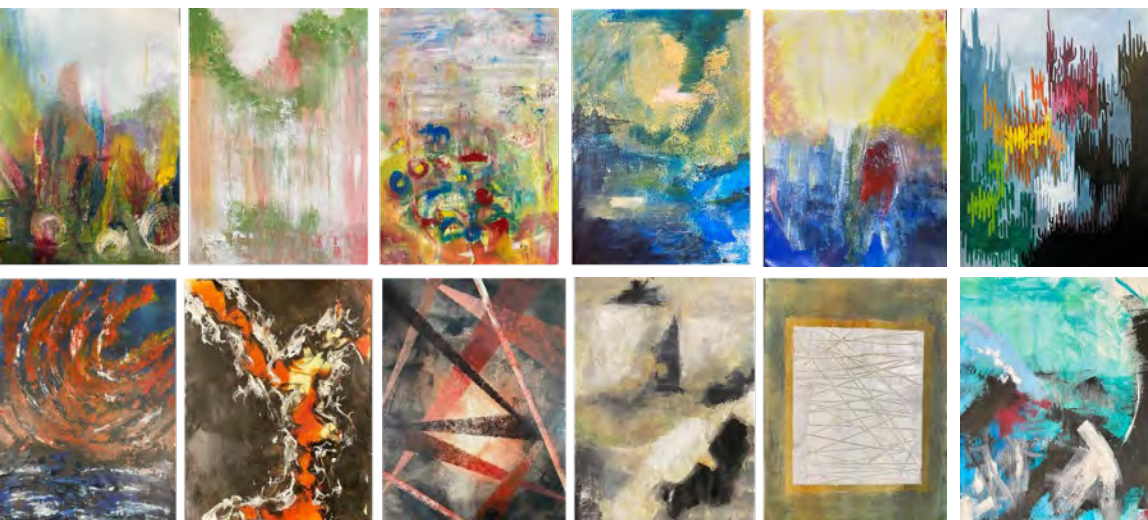


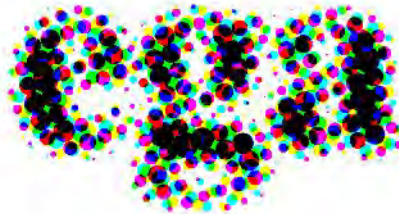


Literatura dibujada en el espacio gastronómico - Análisis de Formas I

Fátima Sarasola, Guadalupe Cantarero, Daniel Horcajada, Rocío Santo-Tomás
Universidad San Pablo CEU, Madrid



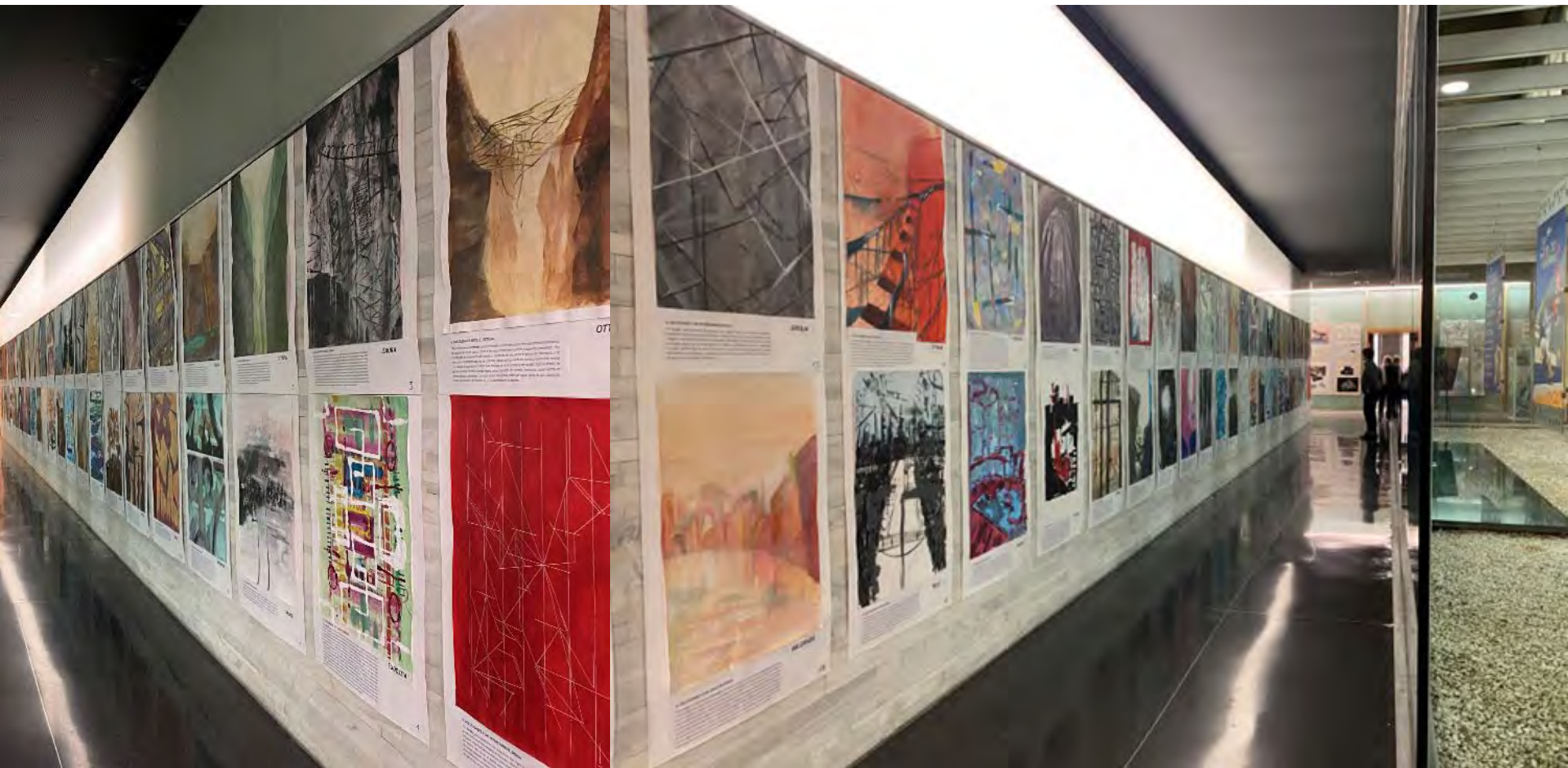


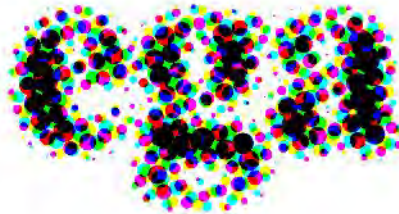


Exposición LECTURAS DIBUJADAS – Análisis de Formas I

Fátima Sarasola, Guadalupe Cantarero, Daniel Horcajada, Rocío Santo-Tomás
Universidad San Pablo CEU, Madrid



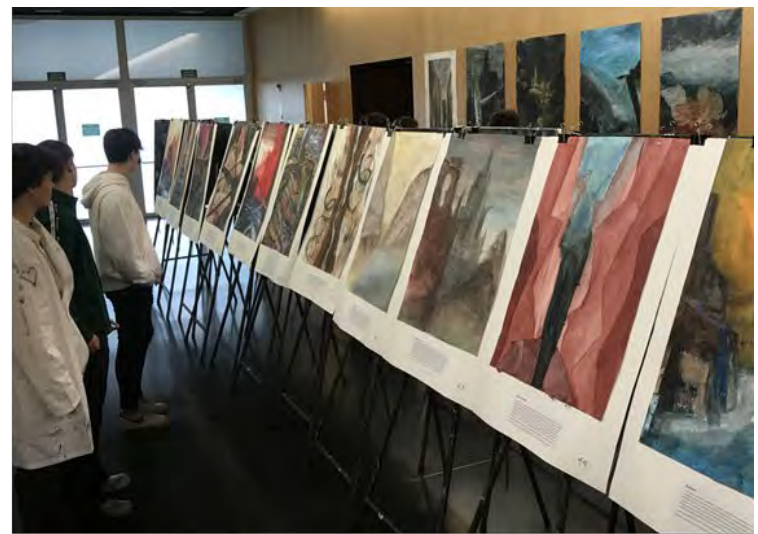


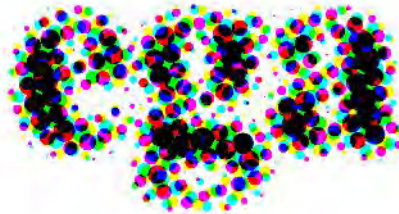


Tolkien y su universo. RE Imaginando la Tierra media – Análisis de Formas I

Fátima Sarasola, Guadalupe Cantarero, Daniel Horcajada, Rocío Santo-Tomás
Universidad San Pablo CEU







El arte público como motor de transformación urbana: Plaza de Colón y puente de Eduardo Dato en Madrid

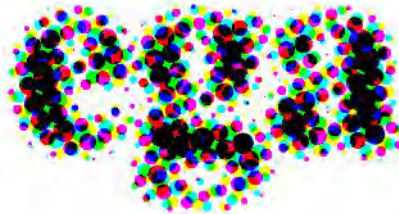
Juan Manuel Ros, Fátima Sarasola, Blanca Muro, Clara Maestre, Luis Perea y Juan Arana: GIR AURS
Universidad San Pablo CEU, Madrid





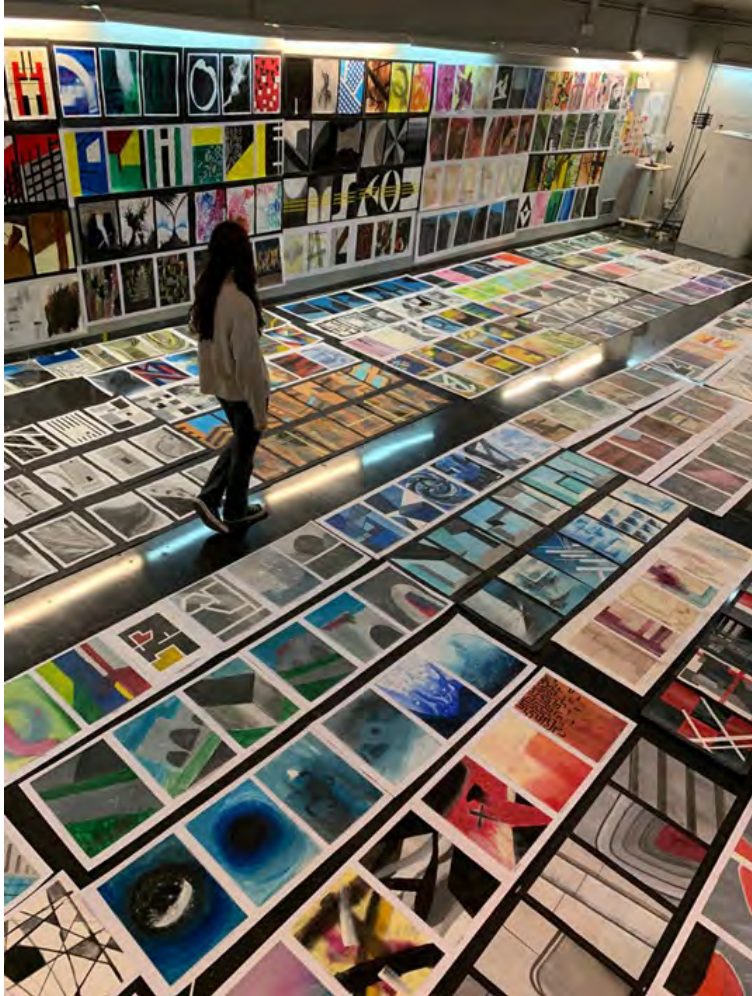
**semana de la
ciencia y la innovación**
Del 3 al 16 de noviembre de 2025





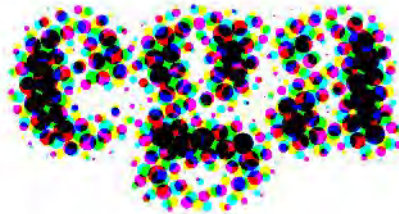
La búsqueda de la abstracción en la arquitectura madrileña–Análisis de Formas I

Fátima Sarasola, Guadalupe Cantarero, Daniel Horcajada, Rocío Santo-Tomás y Coro Villalonga
Universidad CEU San Pablo, Madrid



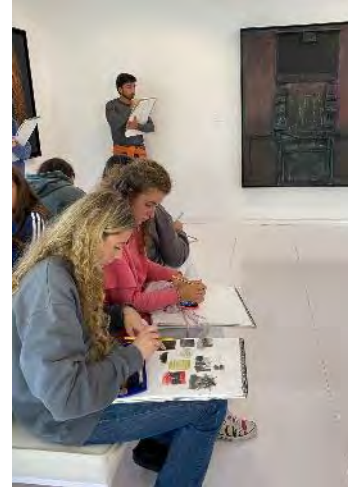


La búsqueda de la abstracción en la arquitectura madrileña-Análisis de Formas I - Fátima Sarasola, Guadalupe Cantarero, Daniel Horcajada, Rocío Santo-Tomás y Coro Villalonga
Universidad CEU San Pablo, Madrid

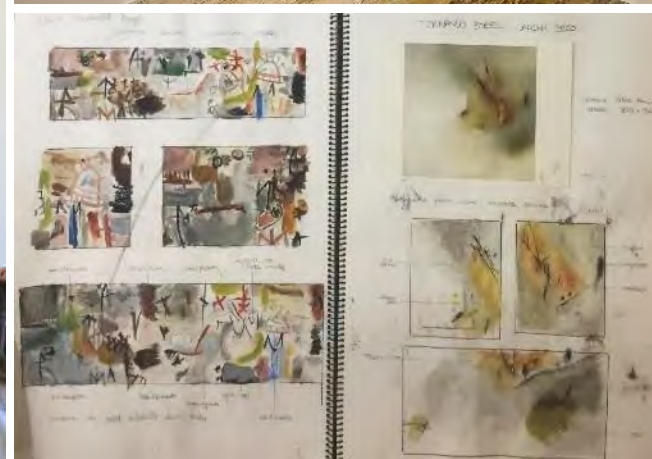


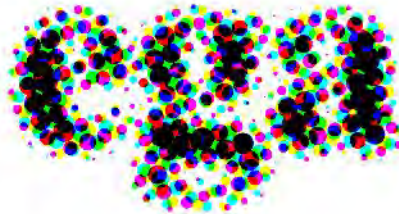
Taller de dibujo en el Museo de Arte Abstracto Español de Cuenca – Análisis de Formas I

Fátima Sarasola, Guadalupe Cantarero, Daniel Horcajada, Clara Maestre y Rocío Santo-Tomás
Universidad CEU San Pablo, Madrid



Taller de dibujo en el Museo de Arte Abstracto Español de Cuenca - Fátima Sarasola, Guadalupe Cantarero, Daniel Horcajada, Clara Maestre y Rocío Santo-Tomás
Universidad CEU San Pablo, Madrid

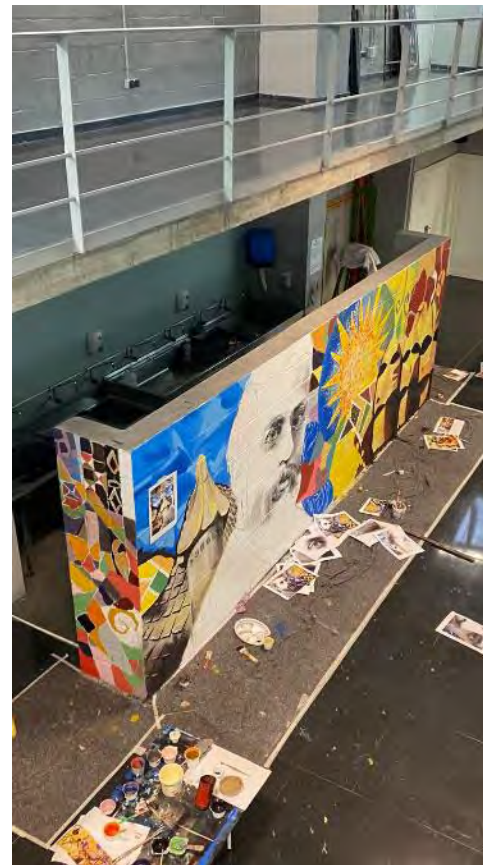


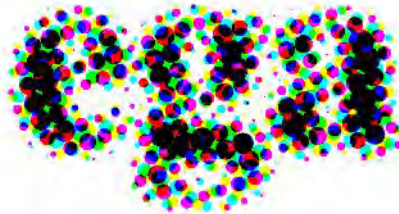


Aula expandida y arte urbano: cocreación, identidad y lugar

Juan Manuel Ros, Fátima Sarasola, Clara Maestre, Blanca Muro, Juan Arana, Javier Haering: GIR AURS
Universidad CEU San Pablo, Madrid





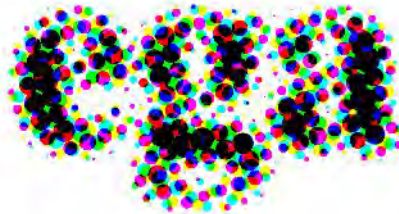


Taller “Arte urbano y campus: Observa, Analiza y Crea” SUMMER EXPERIENCE 2025

Fátima Sarasola, Clara Maestre y Blanca Muro: GIR AURS
Universidad CEU San Pablo, Madrid

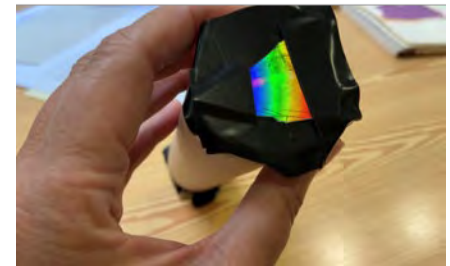




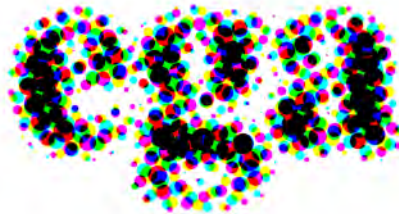


Taller “Experimenta el color y descubre su origen natural”

Fátima Sarasola, Blanca Muro, Rocío Santo-Tomás, Guadalupe Cantarero
Universidad CEU San Pablo, Madrid

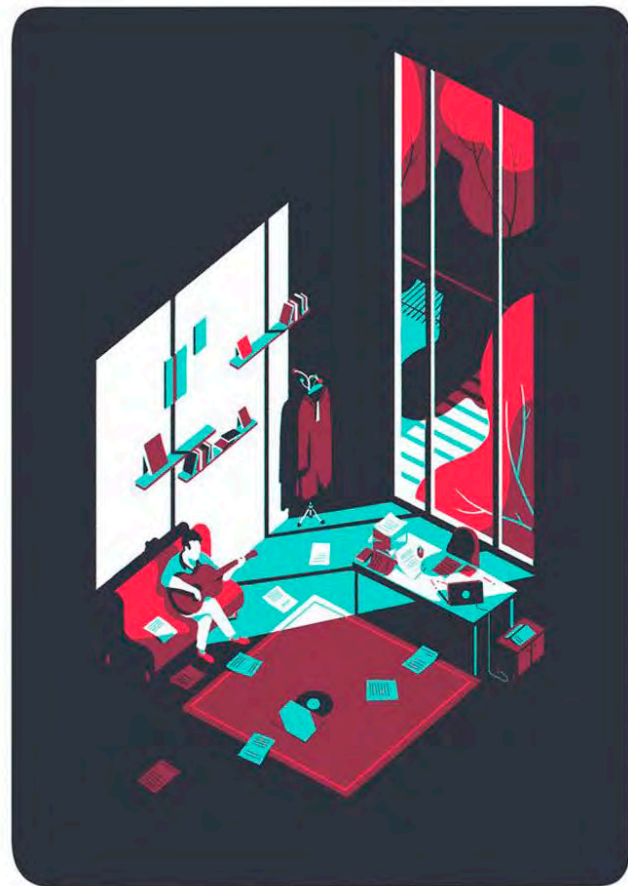
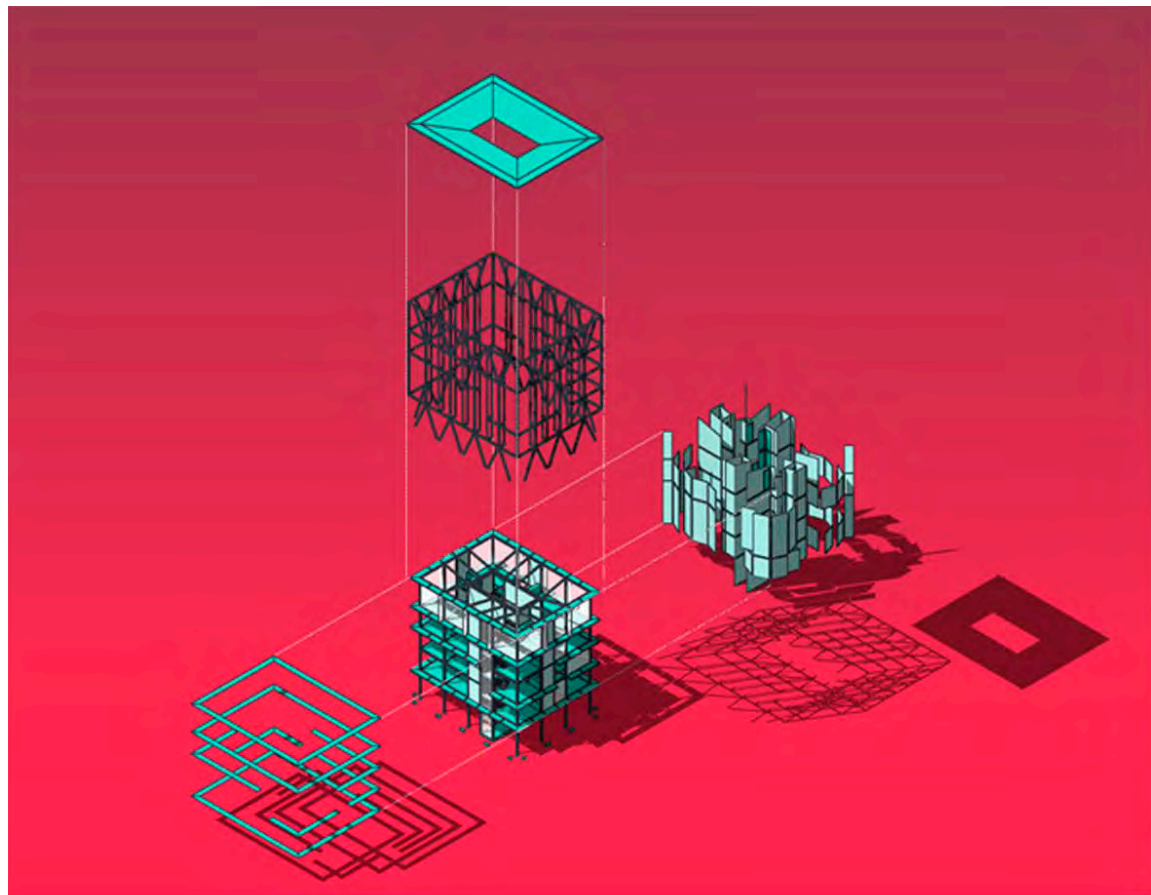


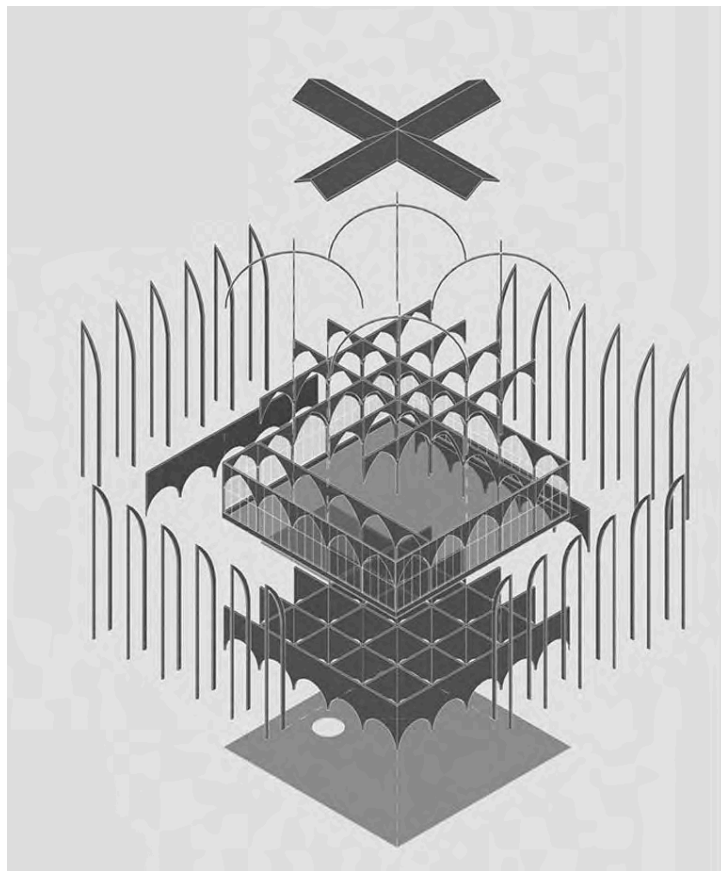


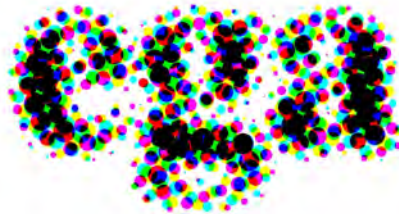


Espacio no es BIM

Andrés Anguita Díaz
Universidad Tecnológica Metropolitana

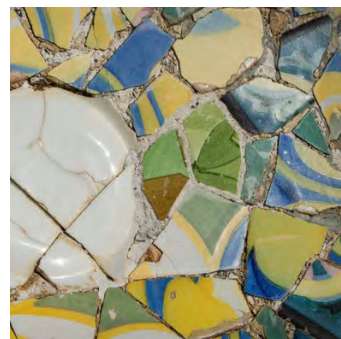
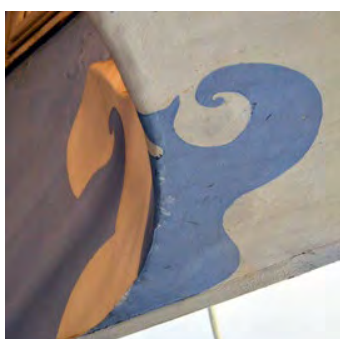
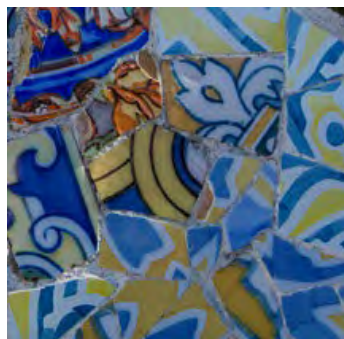
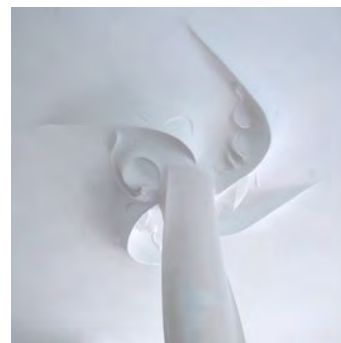


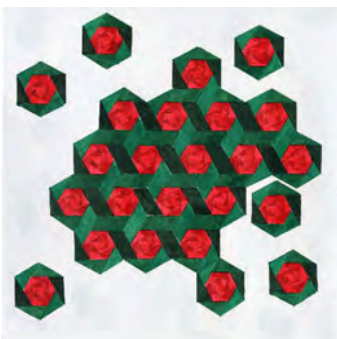
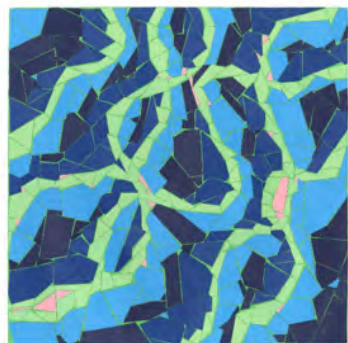
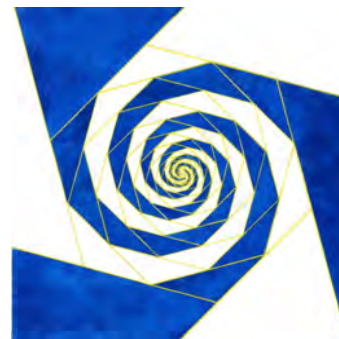
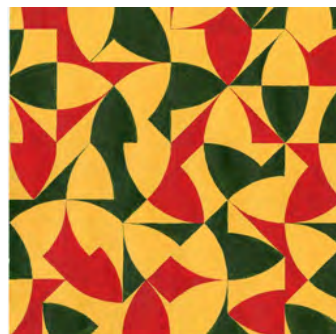
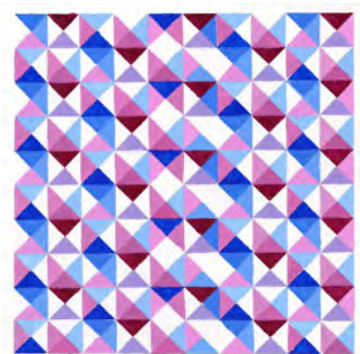


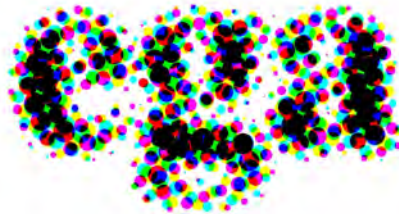


¿Estuvo alguna vez Jujol en la Escuela de Alicante?

Ángel Allepuz Pedreño/ Carlos L. Marcos
Universidad de Alicante





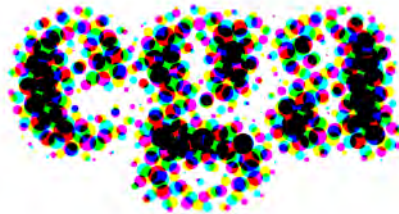


¿Estuvo alguna vez Sol LeWitt en la Escuela de Alicante?

Ángel Allepuz Pedreño/ Carlos L. Marcos
Universidad de Alicante







Desmontar, recomponer y transformar: entre lo analógico y lo digital

Nuria Vallespín Toro + Valeria González Bencomo
Universidad Europea de Canarias

EL ORDEN DEL CAOS

El orden se deconstruye en caos y del caos se construye el orden

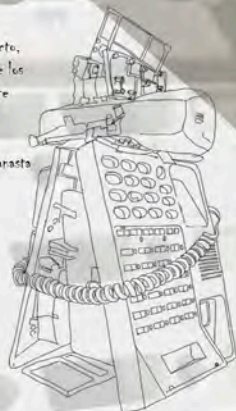


ÁREA RINGSTORM

En cada rincón, un nuevo punto de conexión

A partir de las piezas de un teléfono fijo surge este proyecto. Área Ringstorm, un espacio destinado a la actividad física de los jóvenes. Con las propias piezas se obtiene un gran contraste entre vacíos y llenos y, de sombras y luces.

Dentro de él, podemos encontrar desde una raqueta, una canasta de baloncesto, un rodódromo e, incluso, barras para hacer calistenia.

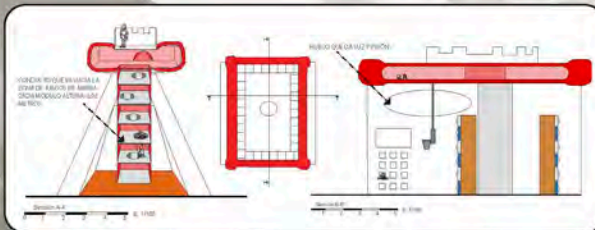
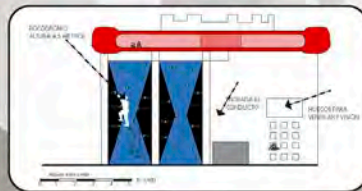
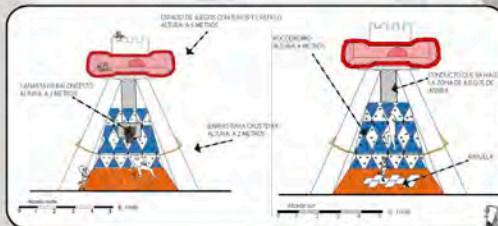


Lista de piezas usadas



ÁREA RINGSTORM

Un parque donde cada paso es una nueva llamada



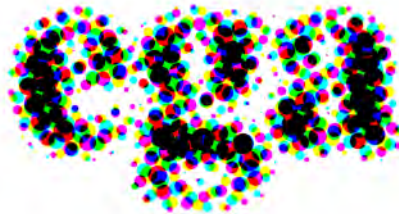
ÁREA RINGSTORM

Espacios que hablan, conectar y transformar



FRONTIS FRONT
Generate a vertical and dynamic base of a modern urban structure designed for youth level 7 to 10. The structure is located in an urban public space, such as a park or recreational area. It includes:
- A medium-sized climbing wall in a central location.
- A set of integrated basketball hoops in the structure.
- An elevated play area on the top level, where kids can interact and play.
The structure is primarily made of wood, but it also includes a set of integrated basketball hoops in the structure. The structure is primarily made of wood, but it also includes a set of integrated basketball hoops in the structure. The structure is primarily made of wood, but it also includes a set of integrated basketball hoops in the structure.

VERSIÓN FINAL

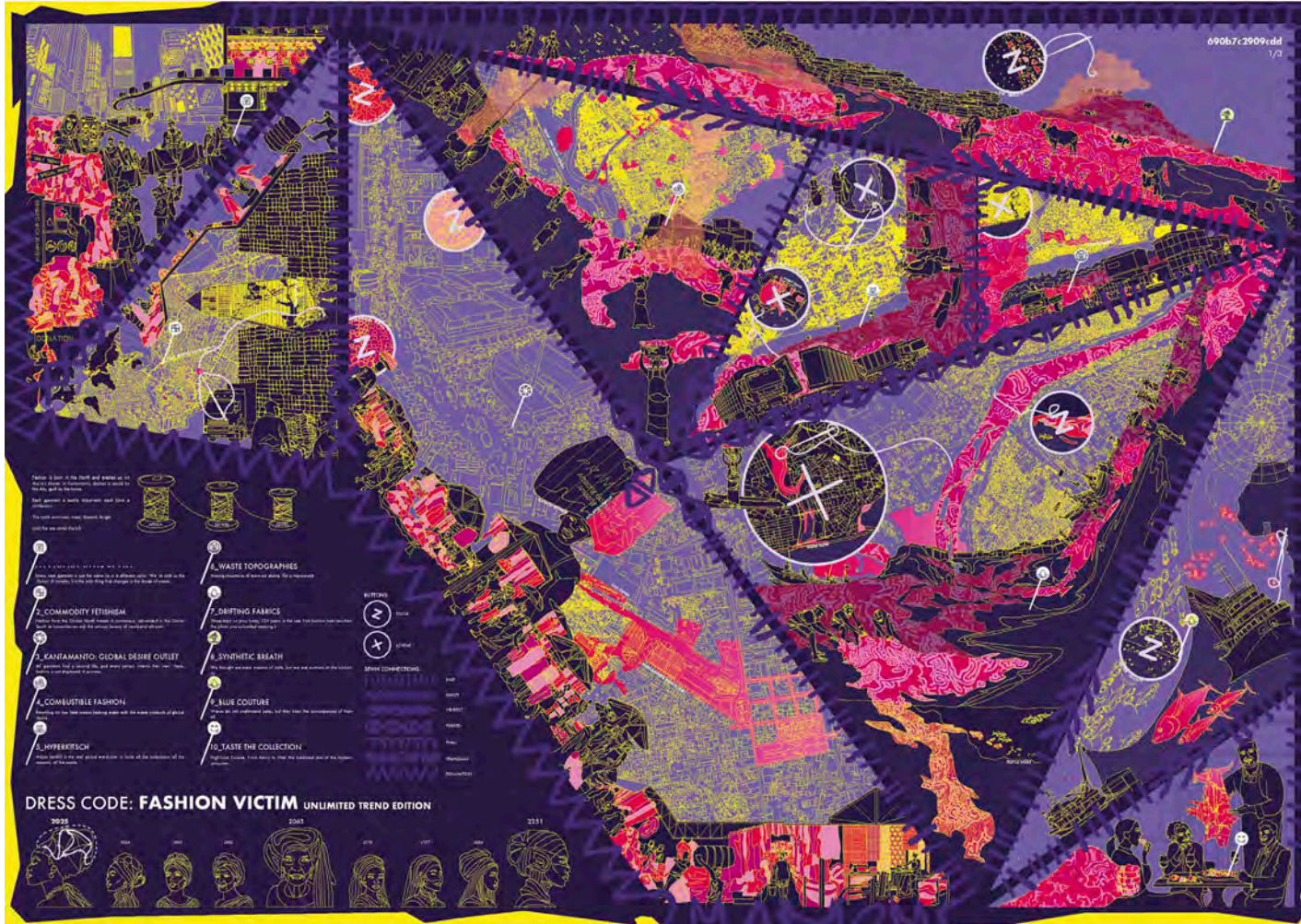


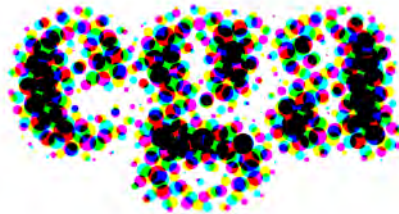
Dress Code: Fashion Victim (1) _UIA Competition_Mention

Gabriela Pérez + Sara Cruz (Prof. Nuria Vallespín, Rubén Servando, Victor Cano)
Universidad Europea de Canarias



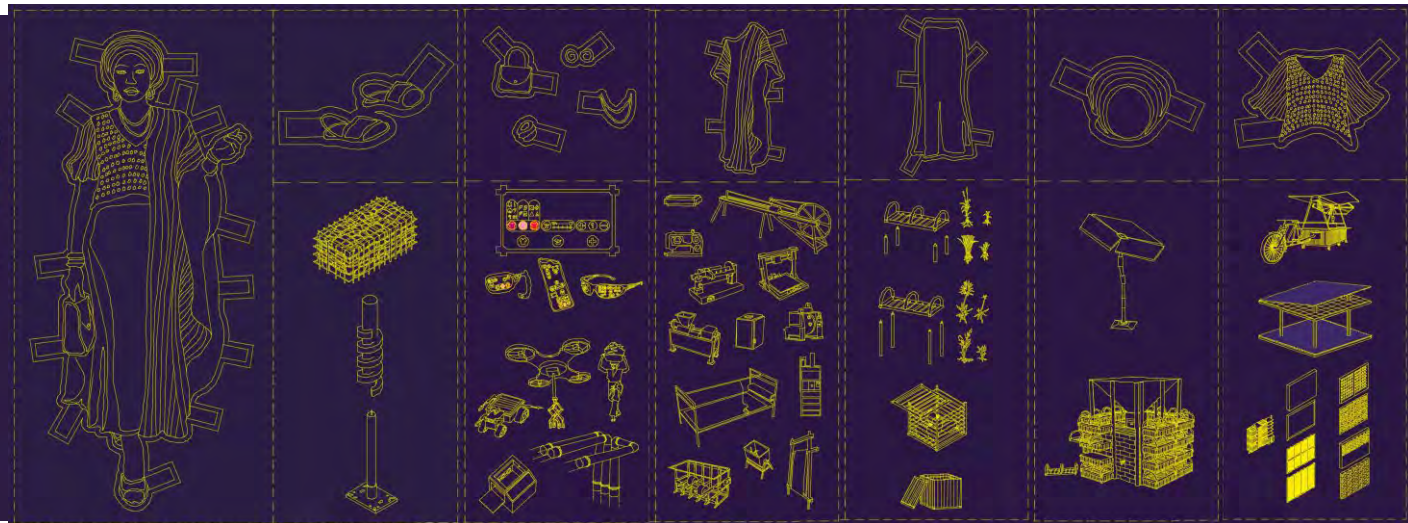
Dress Code: Fashion Victim (UIA Competition_Mention)–Gabriela Pérez + Sara Cruz (Prof. Nuria Vallespín, Rubén Servando, Víctor Cano)– Universidad Europea de Canarias





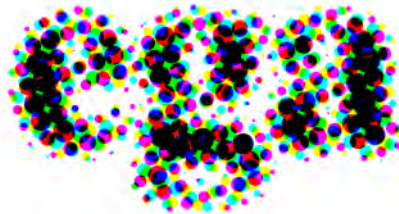
Dress Code: Fashion Victim (2) _UIA Student Competition_Mention

Gabriela Pérez + Sara Cruz (Prof. Nuria Vallespín, Rubén Servando, Víctor Cano)
Universidad Europea de Canarias





Dress Code: Fashion Victim (UIA Competition_Mention)–Gabriela Pérez + Sara Cruz (Prof. Nuria Vallespín, Rubén Servando, Víctor Cano)– Universidad Europea de Canarias



Dress Code: Fashion Victim (3) _UIA Student Competition_Mention

Gabriela Pérez + Sara Cruz (Prof. Nuria Vallespín, Rubén Servando, Victor Cano)
Universidad Europea de Canarias

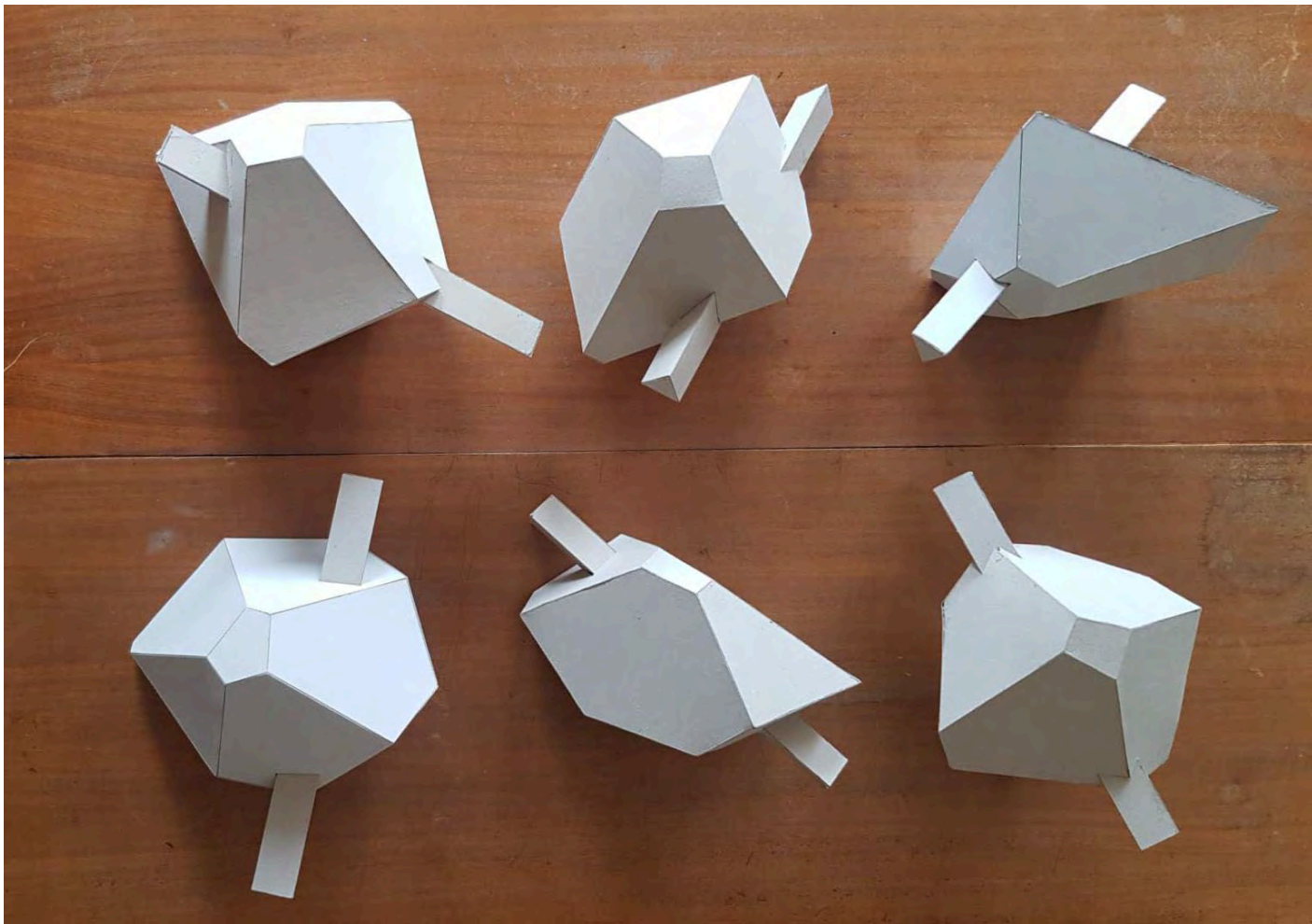


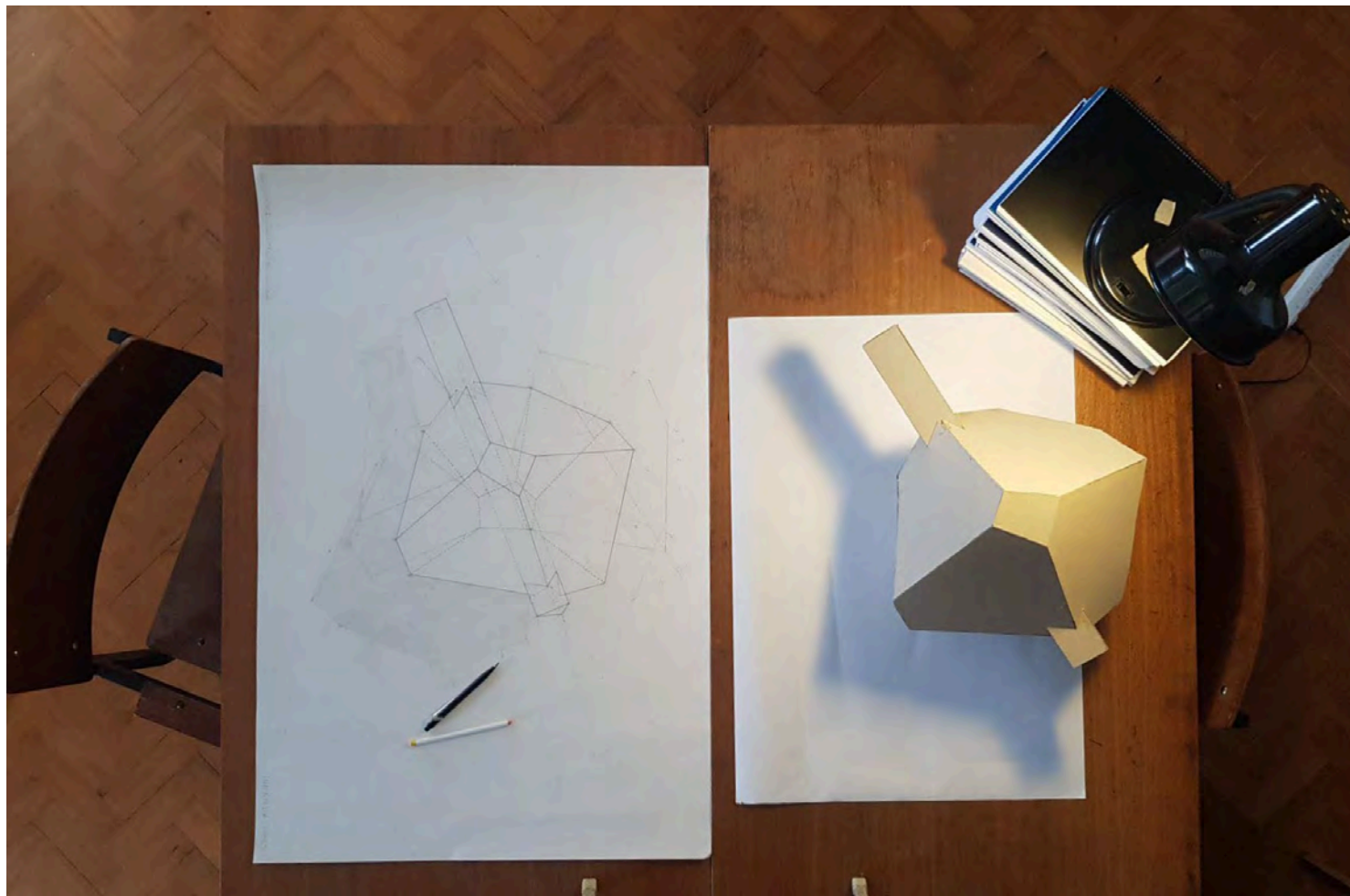
Dress Code: Fashion Victim (UIA Competition_Mention)-Gabriela Pérez + Sara Cruz (Prof. Nuria Vallespín, Rubén Servando, Víctor Cano)- Universidad Europea de Canarias

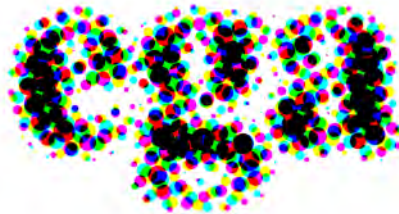


Sistema Cotado na representação analógica de geometrias complexas

V. Murtinho; J. Maia; M. J. Pinto; M. Ferreira
Universidade de Coimbra



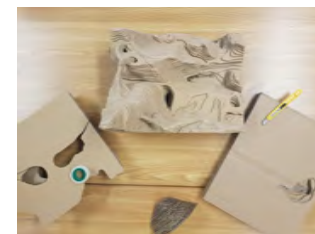
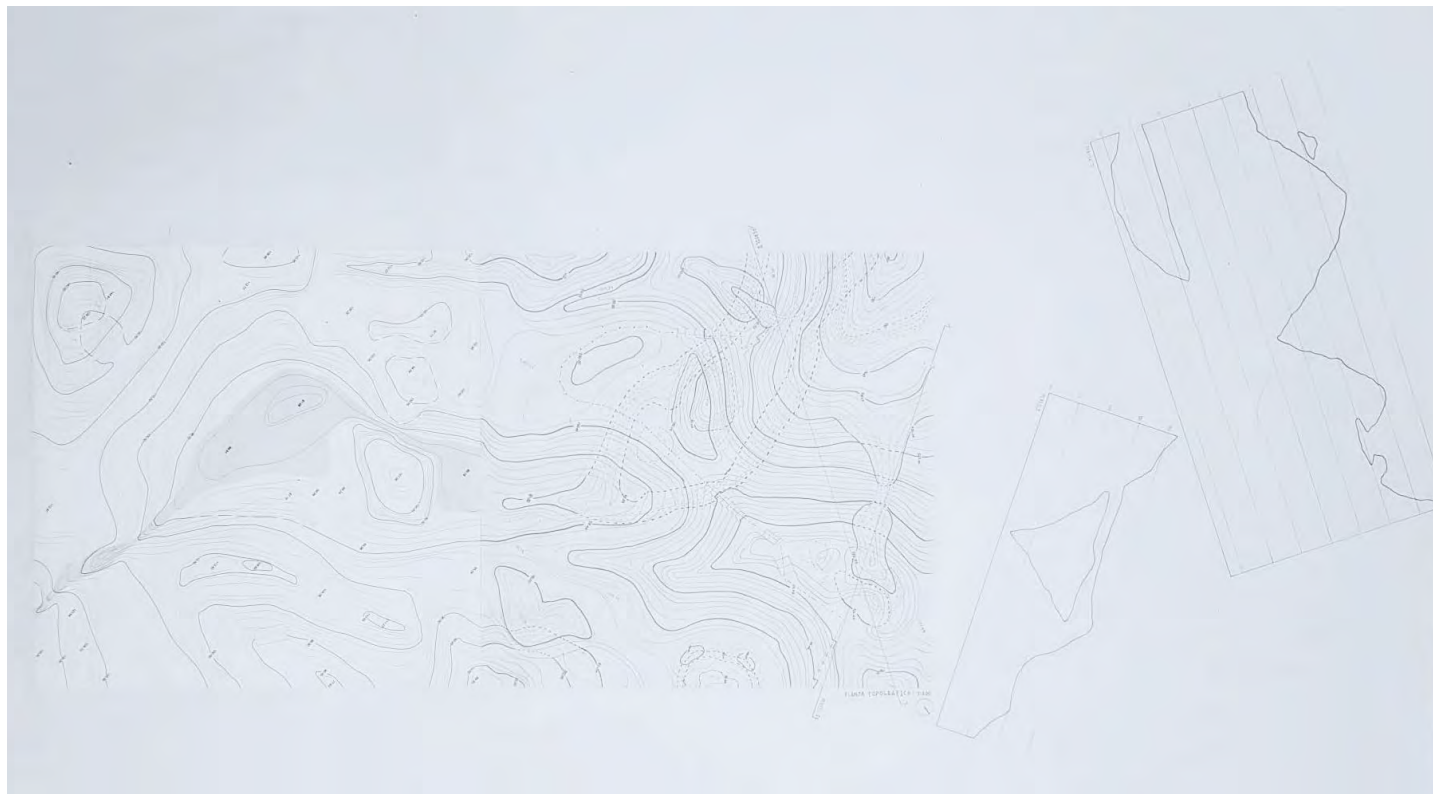


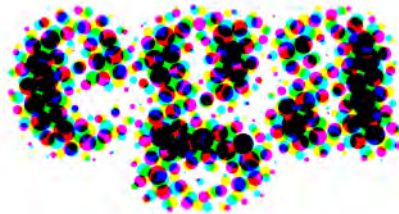


Sistema Cotado na leitura e registo de situações topográficas

V. Murtinho; J. Maia; M. J. Pinto; M. Ferreira
Universidade de Coimbra

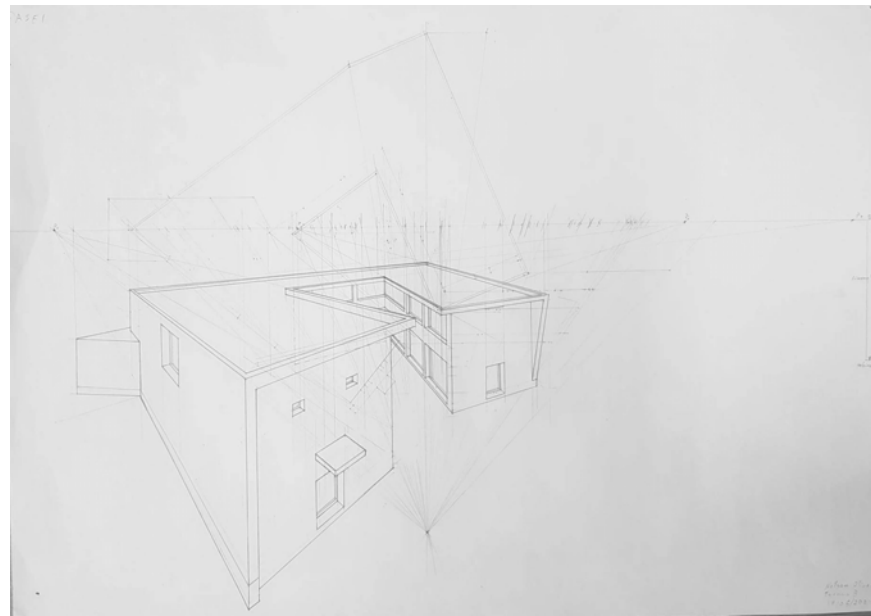


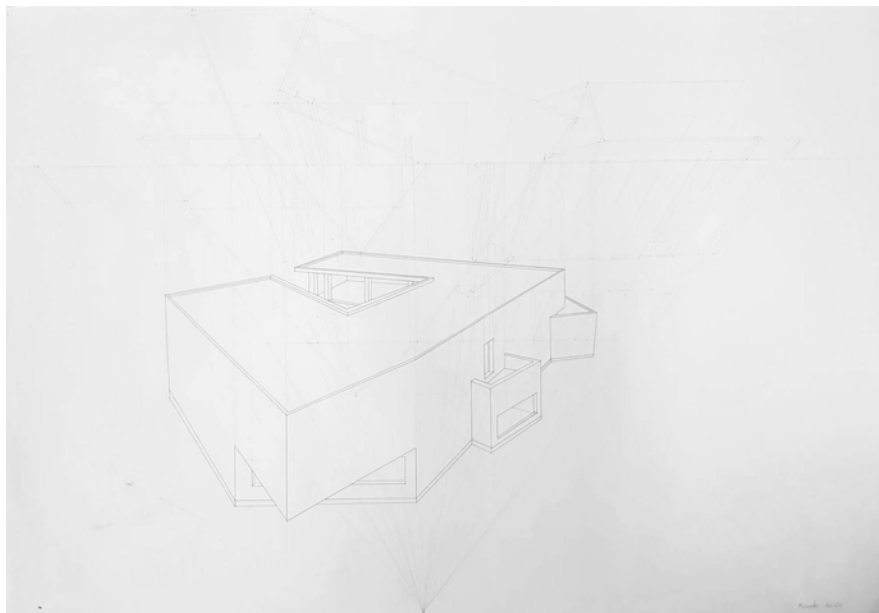


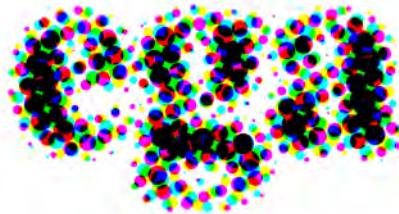


Método Prático de Perspetiva (V. Murtinho): agilização na representação analógica e rigorosa do espaço

V. Murtinho; J. Maia; M. J. Pinto; M. Ferreira
Universidade de Coimbra



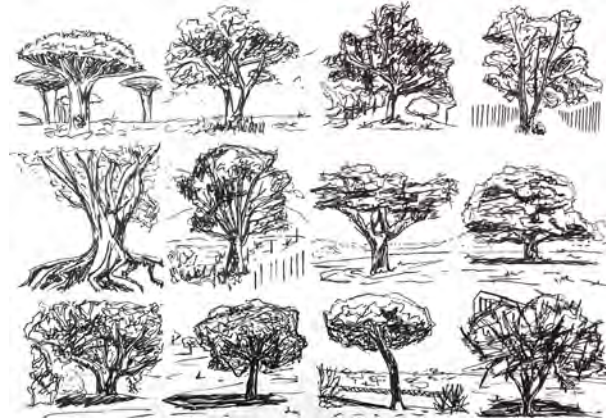
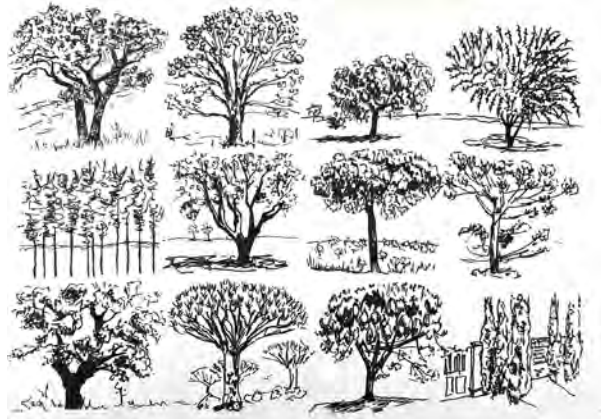


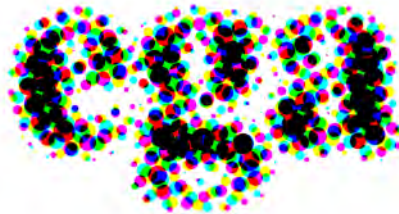


A observação direta como estratégia de desenvolvimento da sensibilidade aos valores plásticos e estéticos

T. Pais, P. Pousada, A. Monteiro, M. Ferreira
Universidade de Coimbra





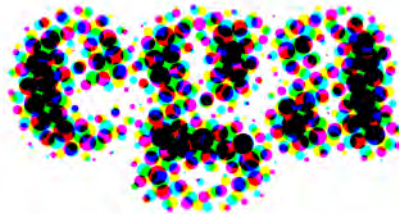


O desenho de contorno como modo impulsionador do desenvolvimento de competências percetivas

T. Pais, P. Pousada, A. Monteiro, M. Ferreira
Universidade de Coimbra



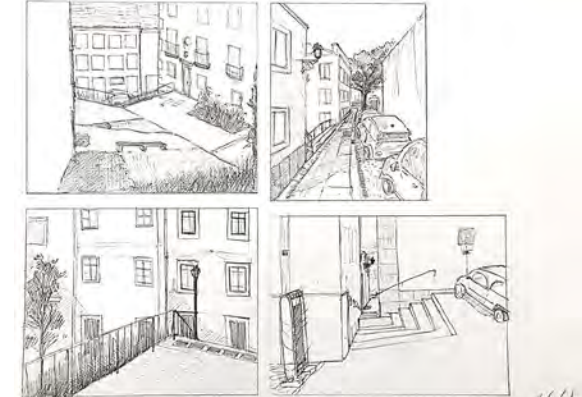
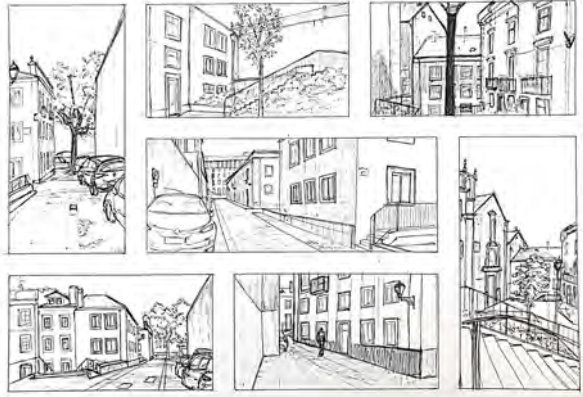
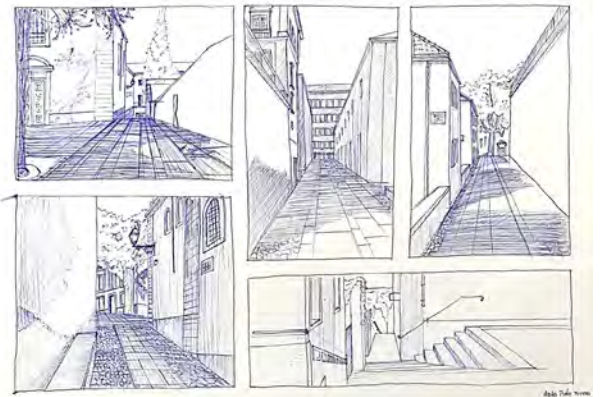
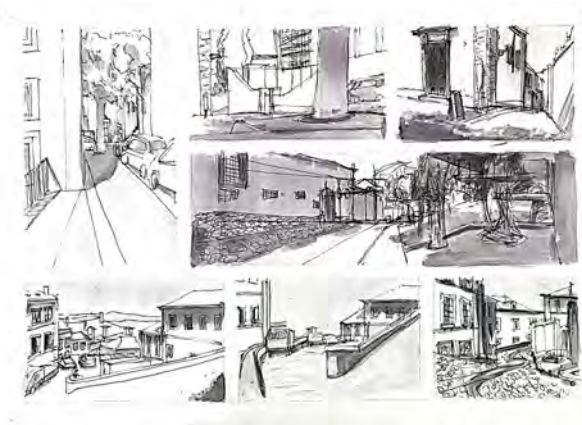
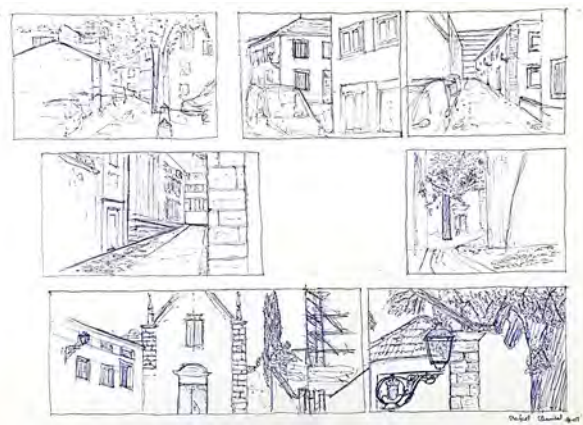


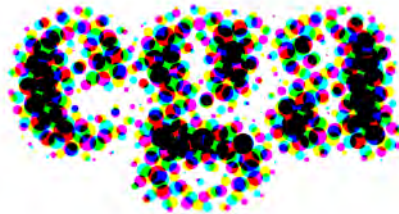


A observação direta como meio de compreensão espacial e de leitura crítica do ambiente construído

T. Pais, P. Pousada, A. Monteiro, M. Ferreira
Universidade de Coimbra



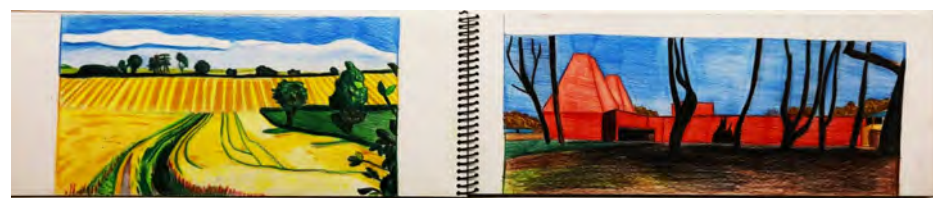


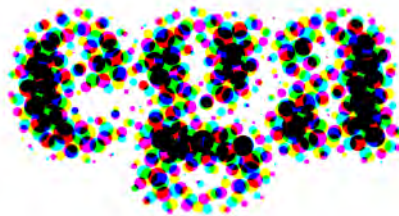


Um suporte inusitado como forma de sensibilização à ocupação
criteriosa do campo do desenho

T. Pais, P. Pousada, A. Monteiro, M. Ferreira
Universidade de Coimbra

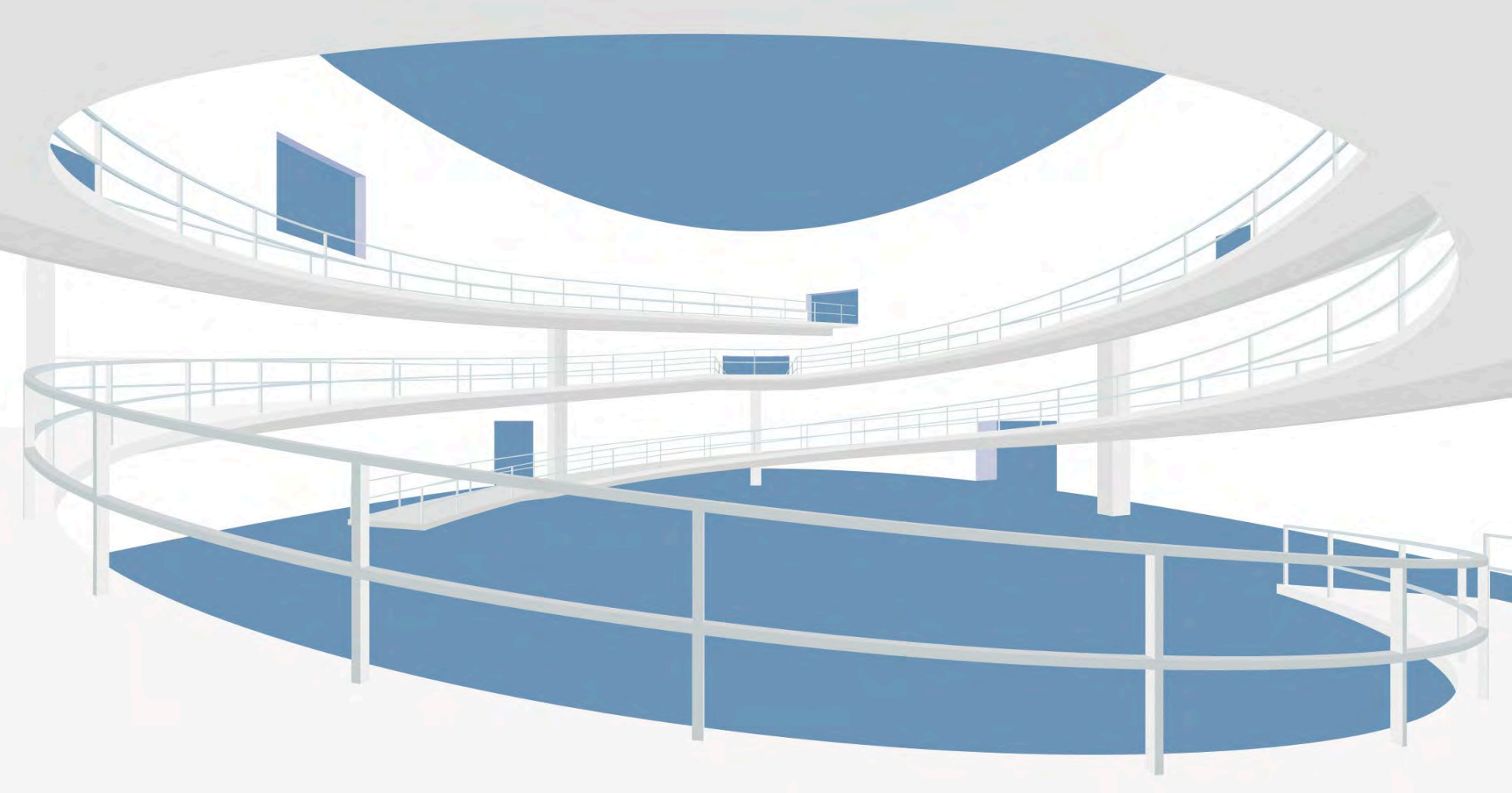


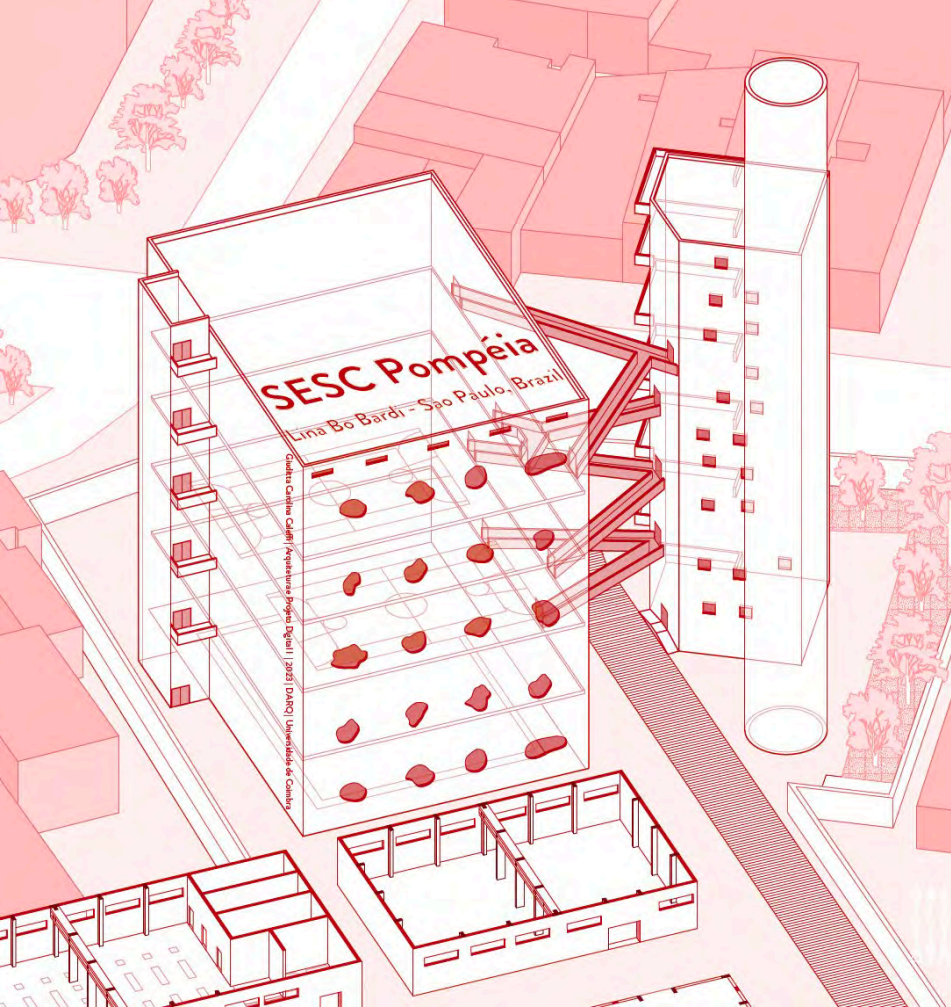


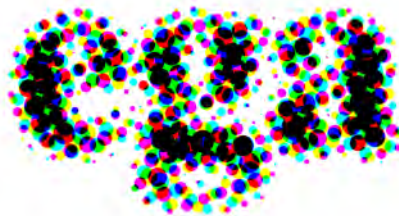


3D Graphical Narratives

Pedro Martins Carvalho, António Monteiro
Universidade de Coimbra



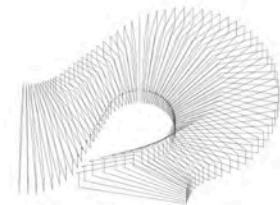
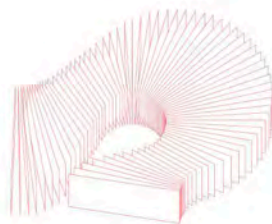
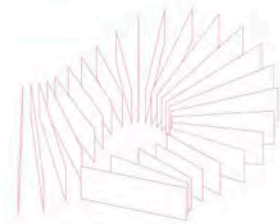
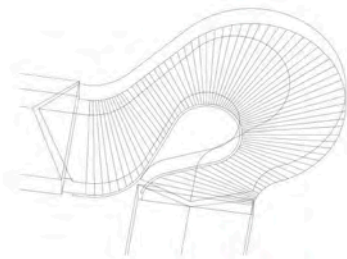
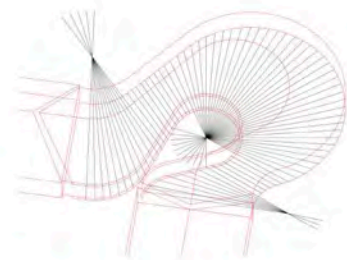


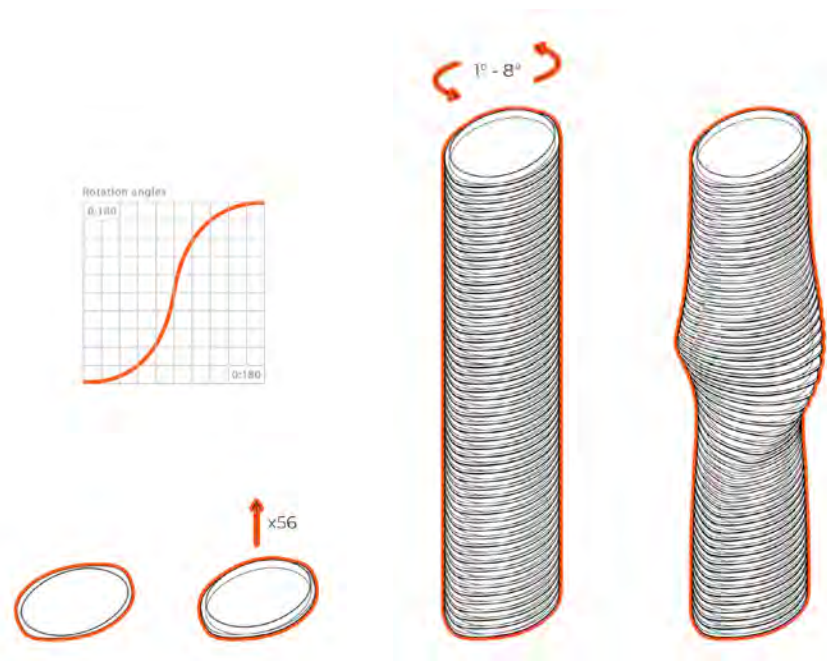


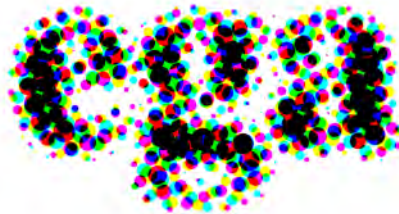
Explorações Formais I

Análise geométrica de arquiteturas complexas

Pedro Martins Carvalho; Maria João Pinto
Universidade de Coimbra





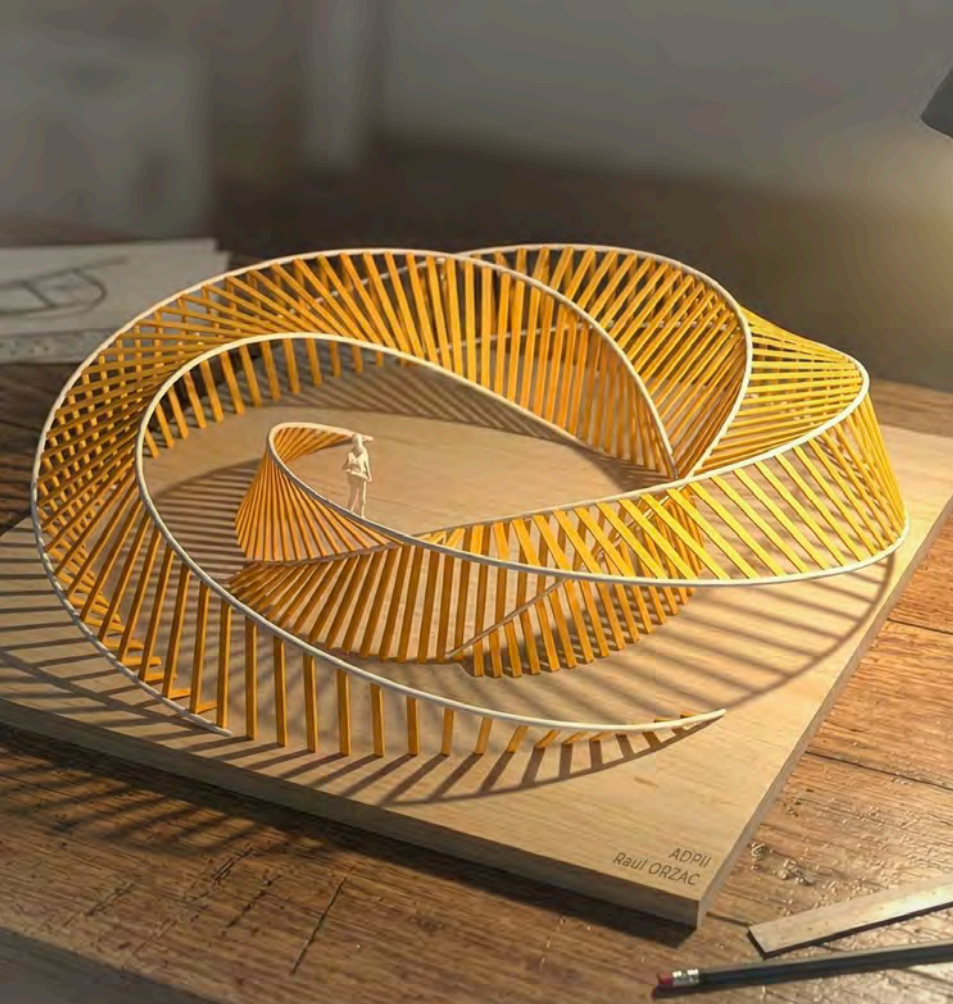


Explorações Formais II

Desenho de um pavilhão de verão com superfícies regradas e lofts

Pedro Martins Carvalho; Maria João Pinto
Universidade de Coimbra

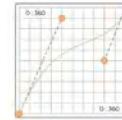




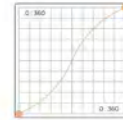
GEOMETRIC VARIATIONS



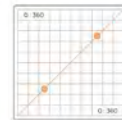
Variation I



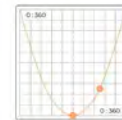
Variation II

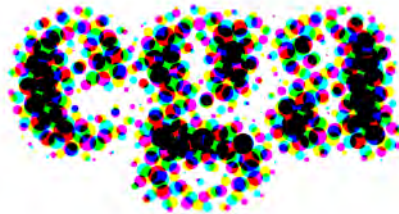


Variation III



Variation IV



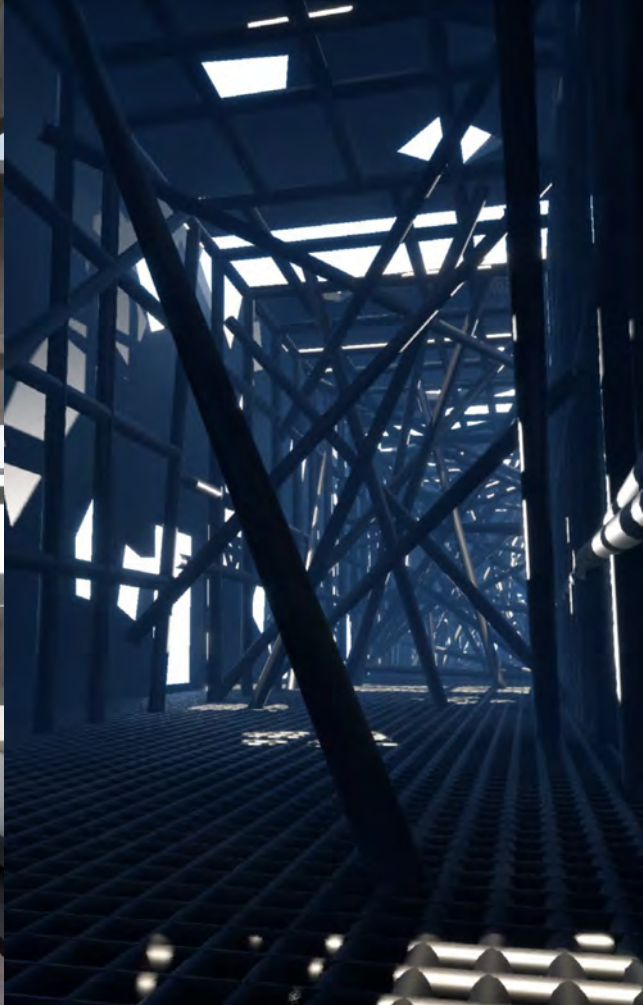
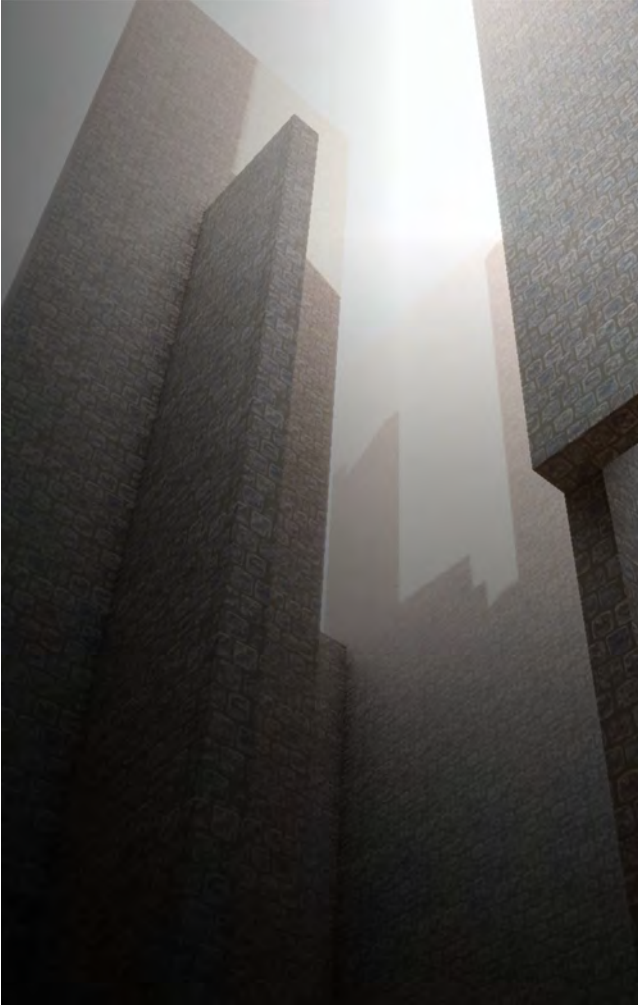


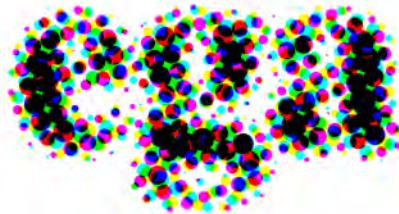
Empathic Spaces

VR experiences of proto-architectures using Unreal Engine 5

Pedro Martins Carvalho
Universidade de Coimbra





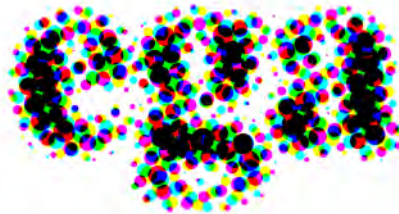


Kairos – Memory of a place through point clouds

Maximilian Oliver Rubin, Pedro Martins Carvalho, Jorge Cardoso
Universidade de Coimbra



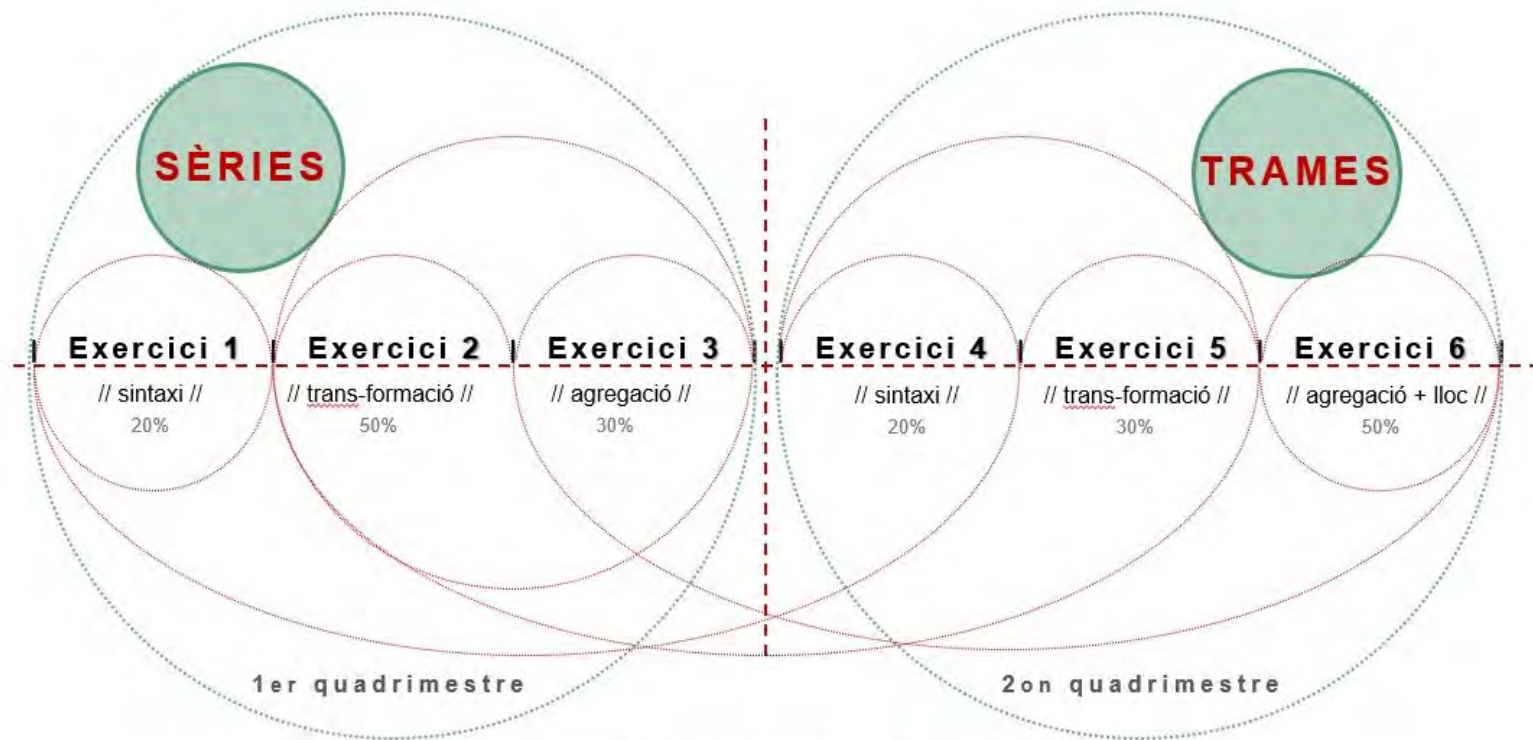




GEOMETRIAS HABITABLES (Bases para el Proyecto I-II, 1r curso)

Daniel García-Escudero (coord.), Berta Bardí-Milà (coord.), Raül Avilla Royo, Maria Beni, Beatriz Borque Badenas, Francesc Camps Palou, Maria Agustina Coulleri, Relja Ferusic, Maria Pia Fontana, Quim Mulà, Adrià Orriols, Francesc Planas, Jaume Prat Ortells, Gerard Puig Freixas, Cecília Rodríguez Vielba, Carles Sala, Eva Serrats Luyts.

Universitat Politècnica de Catalunya (BarcelonaTech), ETSAB



del fragment <> a la totalitat
de l'ordre <> a la variació
de l'eix <> a la quadrícula

1r QUADRIMESTRE / exercicis

Sèries: ritmes, murs, fileres (BPI)

#sèrie, #regla, #seqüència, #unitat, #mòdul, #variació, #excepció, #rítme, #ple,
#buit, #lineal, #filera, #agregació, #crugia, #mur, #patí, #porxo, #privacitat, #res-
closa, #eix, #transformació, #enfilada, #clúster, #concatenació



Exe1



Exe2



Exe3

2n QUADRIMESTRE / exercicis

Trames: estructura oberta, pòrtics, retícules (BPII)

#trama, #retícula, #malla, #isotrópic, #xarxa, #camp, #superfície, #pla, #regulari-
tat, #patró, #deformació, #densitat, #ple, #buit, #interrupció, #continuitat, #pòrtic,
#pilar, #modulació, #gradació, #variació, #connexió, #topografia, #orientació



Exe4

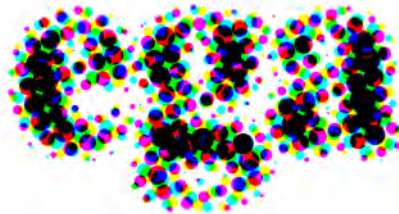


Exe5



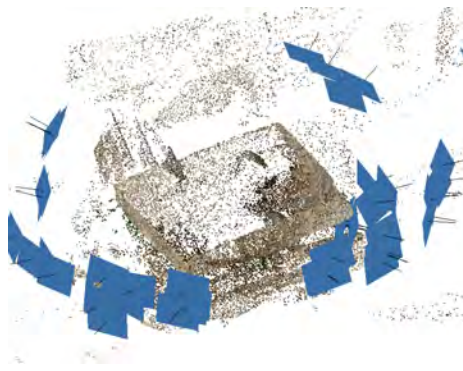
Exe6

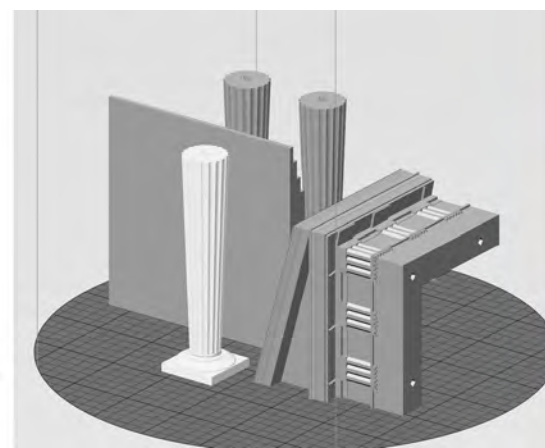
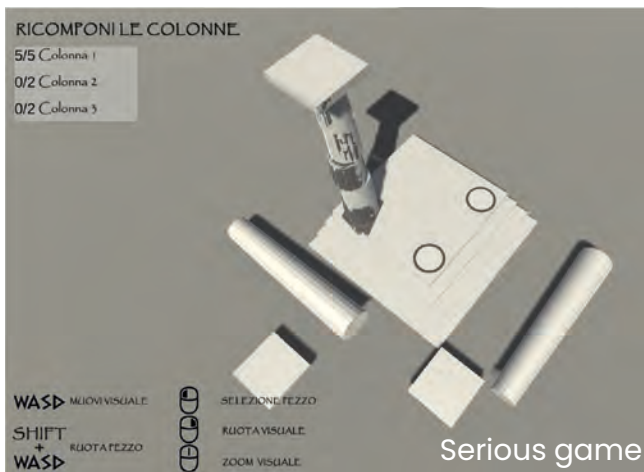


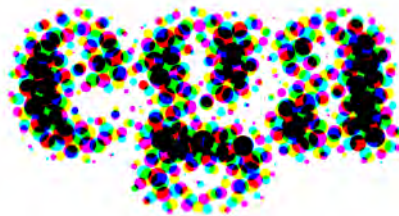


Disegnare per gli dei: Selinunte, Tempio F UID PhD Summer school

Autors: Settore Disciplinare –Disegno e Rappresentazione (CEAR 10A)
Università degli studi di Palermo







Rappresentare lo spazio nell'arte: percorsi innovativi per la didattica dell'architettura

Autors: Prof.ssa Marcella La Monica e Prof. Francesco Di Paola
Peer Tutor: Alessandra Emanuela Di Fede; Clarissa Vetromile; Tilde Maria Messina; Salvatore Mancuso
Docente didattica integrativa: Ing. Yuri Alogna
Con la collaborazione dell'Arch. Sofia Menconero.

Università degli Studi di Palermo

Studenti:

- Sofia Vallecchi
- Cristiana Maria Rinella
- Giulia Morello
- Giada Motisi
- Mario Samuel Ienna
- Philip Jeromeya Jeyaratnam
- Flavia Occhiuto
- Angiolina Sofia Pettineo
- Sofia Montagno Cappuccinello
- Giulia Alibrandi
- Sofia Marcenò
- Francesca Chiara Rizza
- Chiara Mirabile
- Chiara Di Natale
- Maria Sofia Pantina
- Rosario De Gregorio



**Università
degli Studi
di Palermo**

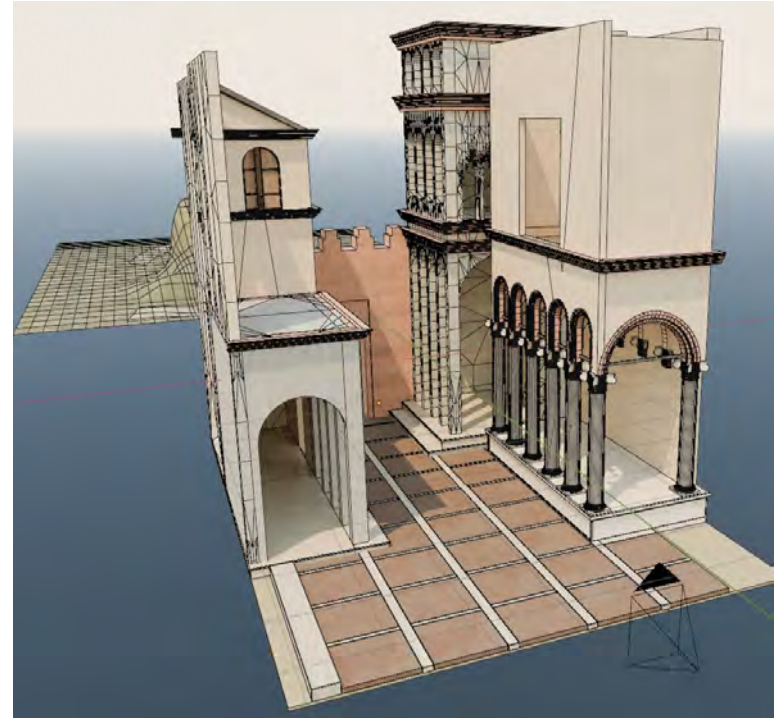
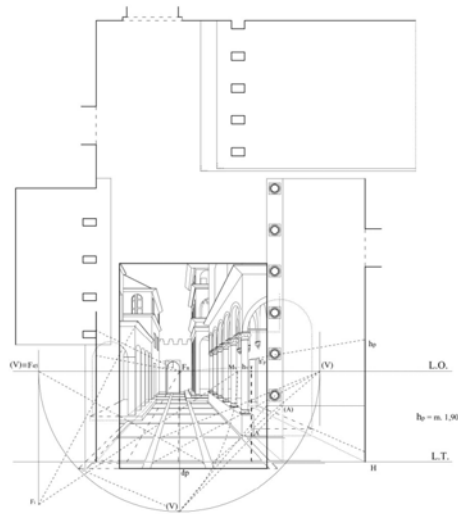


**DIPARTIMENTO
DI ARCHITETTURA
UNIPA**



**CORSO DI LAUREA MAGISTRALE
IN ARCHITETTURA
SEDE DI PALERMO
DIPARTIMENTO
DI ARCHITETTURA DI PALERMO**

«Oltre il quadro. Dalla tela allo spazio»_Navigazione in AR dell'Annunciazione di Frà Carnevale;



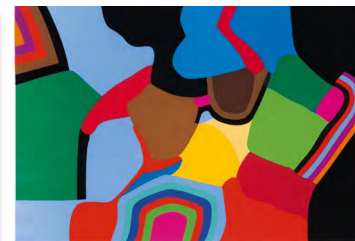
2) Esplorazione in VR delle strutture architettoniche in
«San Girolamo nello studio» di Antonello da Messina



Antonello da Messina, *San Girolamo nello studio*, 1475. Olio su tavola, 46 x 36,5 cm. Londra, National Gallery.

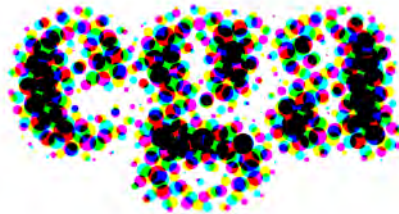


3) Un'esperienza di arte cinetica _TABULAE SCALATAE :
BURRI in contrapposizione”;



Jean Francois Niceron
La perspective curieuse ou magie artificielle des effets merveilleux, 1638.





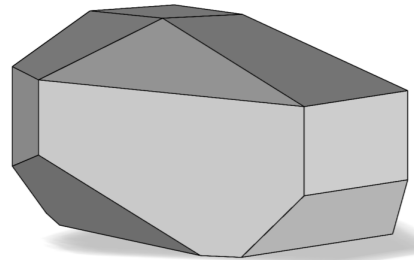
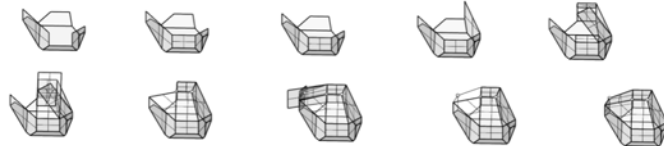
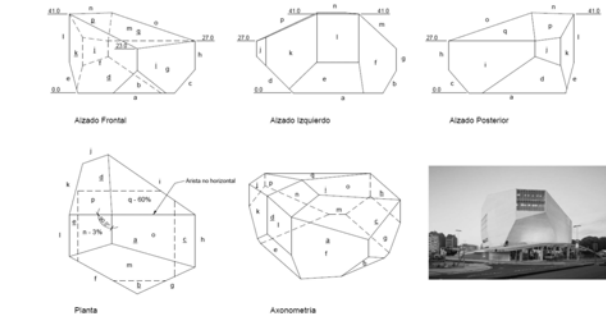
Representación Arquitectónica 1 DRA ETSAB-UPC

Omar Avellaneda, José Ramon Domingo, Pavel Aguilar, Hernan Lleida, Galdric
Santana, Héctor Zapata, Víctor Navarro, Jordi Subiros, Guillem Haro, Francisco
Gonzales, Marilena Christodoulou, Lluís Giménez
Universidad Politécnica de Cataluña

Tema: Planta, alzado y axonometría de la aproximación volumétrica del edificio de la Casa de la Música en Oporto (versión 2), del Arq. Rem Koolhaas

Ejercicio: Hacer el módulo del volumen como entidad tipo sólido mediante curvas planas según las proyecciones dadas. Se facilitó el archivo inicial en .dxf con el desplegado de las curvas A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, 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BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, 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UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ

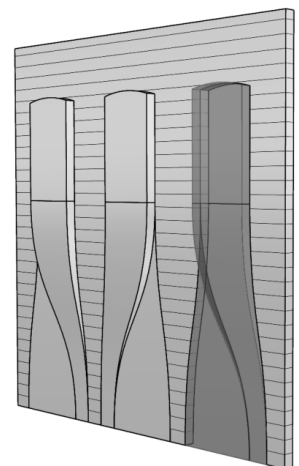
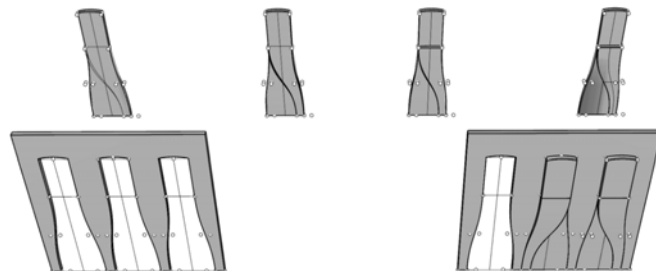
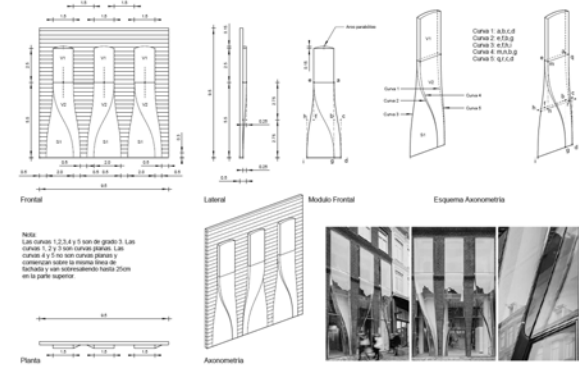
La cara a es horizontal. La cara b tiene una pendiente del 170% y la cara c 110%. Las caras d y e son contiguas. Las caras f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z, aa, ab, ac, ad, ae, af, ag, ah, ai, aj, ak, al, am, an, ao, ap, aq, ar, as, at, au, av, aw, ax, ay, az, ba, bb, bc, bd, be, bf, bg, bh, bi, bj, bk, bl, bm, bn, bo, bp, bq, br, bs, bt, bu, bv, bw, bx, by, bz, ca, cb, cc, cd, ce, cf, cg, ch, ci, cj, ck, cl, cm, cn, co, cp, cq, cr, cs, ct, cu, cv, cw, cx, cy, cz, da, db, dc, dd, de, df, dg, dh, di, dj, dk, dl, dm, dn, do, dp, dq, dr, ds, dt, du, dv, dw, dx, dy, dz, ea, eb, ec, ed, ee, ef, eg, eh, ei, ej, ek, el, em, en, eo, ep, eq, er, es, et, eu, ev, ew, ex, ey, ez, fa, fb, fc, fd, fe, ff, fg, fh, fi, fj, fk, fl, fm, fn, fo, fp, fq, fr, fs, ft, fu, fv, fw, fx, fy, fz, ga, gb, gc, gd, ge, gf, gg, gh, gi, gj, gk, gl, gm, gn, go, gp, gq, gr, gs, gt, gu, gv, gw, gx, gy, gz, ha, hb, hc, hd, he, hf, hg, hh, hi, hj, hk, hl, hm, hn, ho, hp, hq, hr, hs, ht, hu, hv, hw, hx, hy, hz, ia, ib, ic, id, ie, if, ig, ih, ii, ij, ik, il, im, in, io, ip, iq, ir, is, it, iu, iv, iw, ix, iy, iz, ja, jb, jc, jd, je, jf, jg, jh, ji, jj, jk, jl, jm, jn, jo, jp, jq, jr, js, jt, ju, jv, jw, jx, jy, jz, ka, kb, kc, kd, ke, kf, kg, kh, ki, kj, kk, kl, km, kn, ko, kp, kq, kr, ks, kt, ku, kv, kw, kx, ky, kz, la, lb, lc, ld, le, lf, lg, lh, li, lj, lk, ll, lm, ln, lo, lp, lq, lr, ls, lt, lu, lv, lw, lx, ly, lz, ma, mb, mc, md, me, mf, mg, mh, mi, mj, mk, ml, mm, mn, mo, mp, mq, mr, ms, mt, mu, mv, mw, mx, my, mz, na, nb, nc, nd, ne, nf, ng, nh, ni, nj, nk, nl, nm, nn, no, np, nq, nr, ns, nt, nu, nv, nw, nx, ny, nz, oa, ob, oc, od, oe, of, og, oh, oi, oj, ok, ol, om, on, oo, op, oq, or, os, ot, ou, ov, ow, ox, oy, oz, pa, pb, pc, pd, pe, pf, pg, ph, pi, pj, pk, pl, pm, pn, po, pp, pq, pr, ps, pt, pu, pv, pw, px, py, pz, qa, qb, qc, qd, qe, qf, qg, qh, qi, qj, qk, ql, qm, qn, qo, qp, qq, qr, qs, qt, qu, qv, qw, qx, qy, qz, ra, rb, rc, rd, re, rf, rg, rh, ri, rj, rk, rl, rm, rn, ro, rp, rq, rr, rs, rt, ru, rv, rw, rx, ry, rz, sa, sb, sc, sd, se, sf, sg, sh, si, sj, sk, sl, sm, sn, so, sp, sq, sr, ss, st, su, sv, sw, sx, sy, sz, ta, tb, tc, td, te, tf, tg, th, ti, tj, tk, tl, tm, tn, to, tp, tq, tr, ts, tt, tu, tv, tw, tx, ty, tz, ua, ub, uc, ud, ue, uf, ug, uh, ui, uj, uk, ul, um, un, uo, up, uq, ur, us, ut, uv, uw, ux, uy, uz, va, vb, vc, vd, ve, vf, vg, vh, vi, vj, vk, vl, vm, vn, vo, vp, vq, vr, vs, vt, vu, vv, vw, vx, vy, vz, wa, wb, wc, wd, we, wf, wg, wh, wi, wj, wk, wl, wm, wn, wo, wp, wq, wr, ws, wt, wu, wv, ww, wx, wy, wz, xa, xb, xc, xd, xe, xf, xg, xh, xi, xj, xk, xl, xm, xn, xo, xp, xq, xr, xs, xt, xu, xv, xw, xx, xy, xz, ya, yb, yc, yd, ye, yf, yg, yh, yi, yj, yk, yl, ym, yn, yo, yp, yq, yr, ys, yt, yu, yv, yw, yx, yy, yz, za, zb, zc, zd, ze, zf, zg, zh, zi, zj, zk, zl, zm, zn, zo, zp, zq, zr, zs, zt, zu, zv, zw, zx, zy, zz

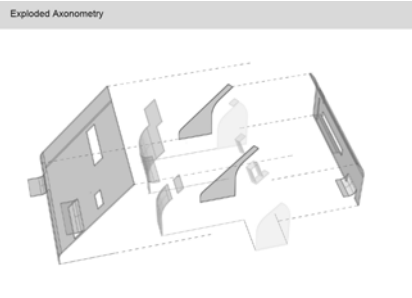
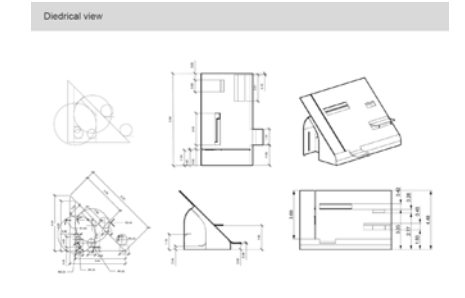
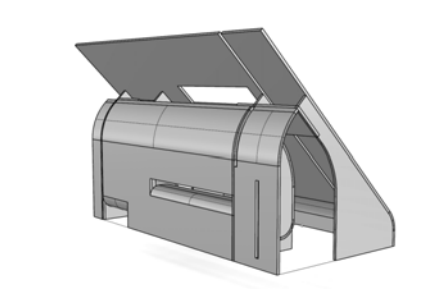
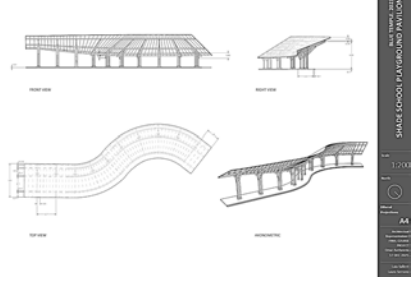
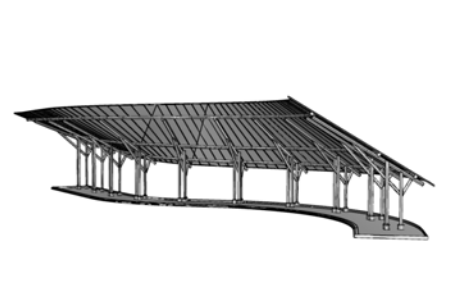
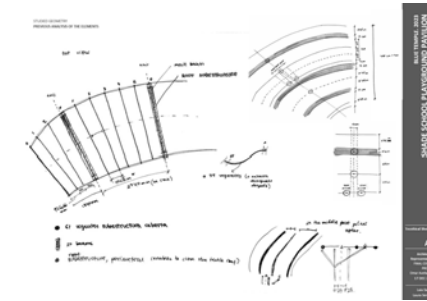
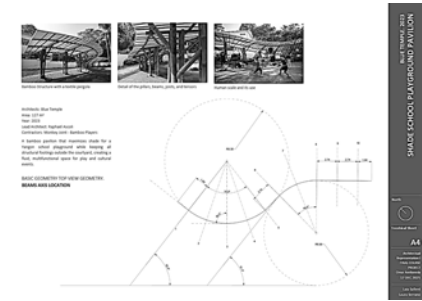
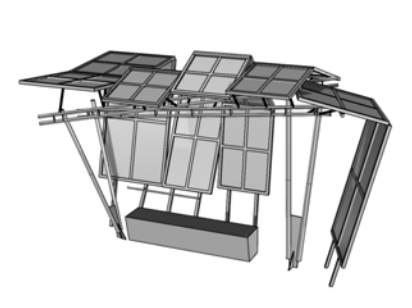
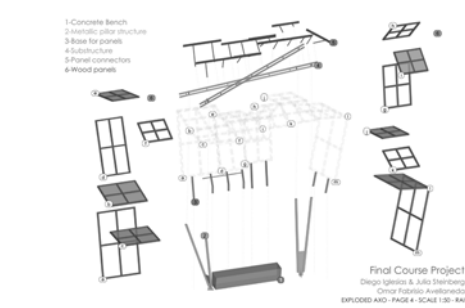
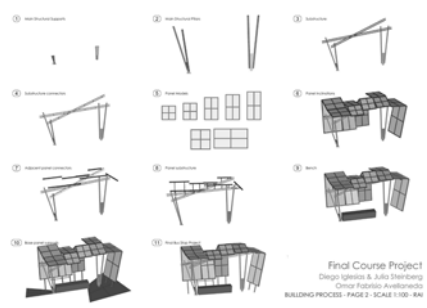
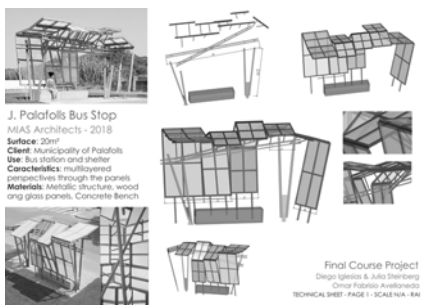


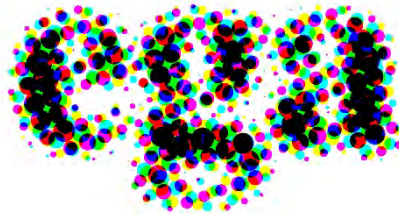
Tema: Planta, alzado, secciones y axonometría de la fachada del edificio F.C. Houthak 100 - The Linking Glass Facade, de los arquitectos Uchida, Amsterdam, 2015.

Ejercicio: Hacer el módulo de fachada que represente como entidad tipo sólido mediante curvas planas según las proyecciones dadas. Se facilitó el archivo inicial en .dxf con el desplegado de las curvas A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UV, UW, UX, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ

Nota: En algunas partes se han usado líneas para indicar el contorno.

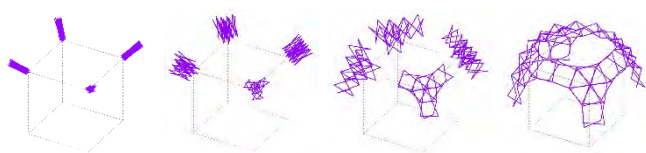




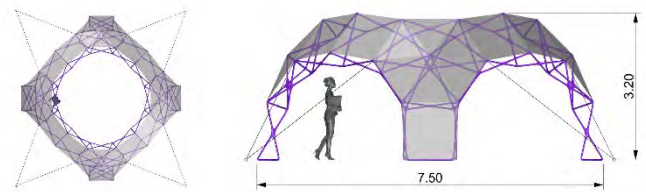


Geometrías Fabricables: Arquitectura / Patrimonio / Video-Mapping

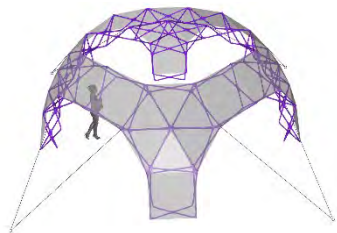
Omar Avellaneda, Sara Fort, Isidro Navarro, Marilena Christodoulou, Marisela Mendoza, Elena Codina
Universidad Politécnica de Cataluña / Nottingham Trent University / "Ion Mincu" University of
Architecture and Urbanism



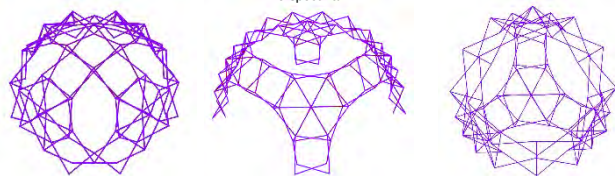
Geometría base, Módulo desplegable por vértices de un cubo. Proceso de Despliegue.



Planta / Alzado



Perspectiva

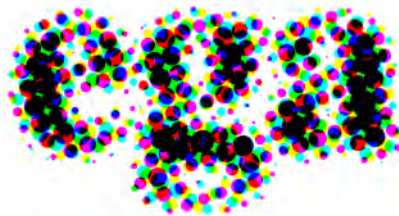


Otras posibilidades de agrupación geométrica del módulo híbrido





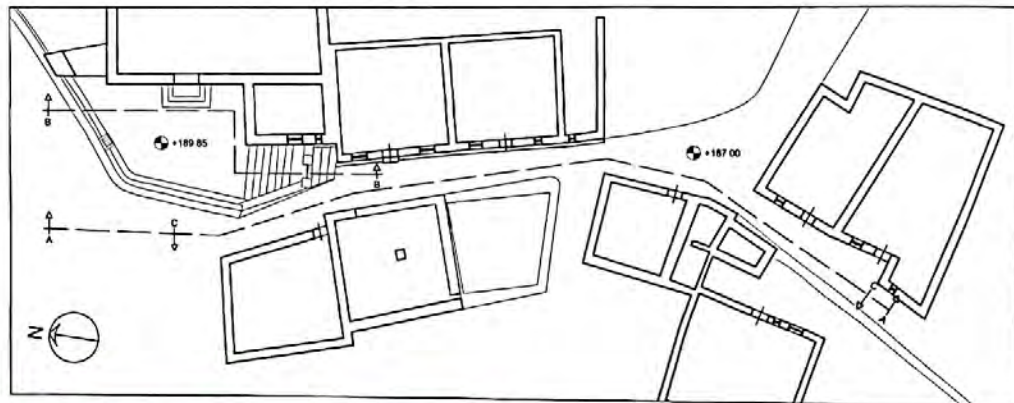
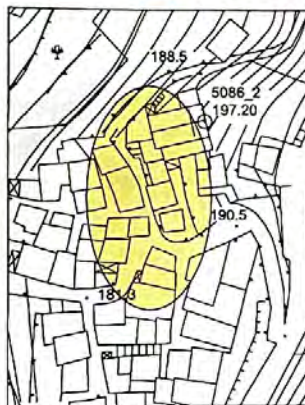
Geometrías Fabricables: Arquitectura / Patrimonio / Video-Mapping
 Omar Avellaneda, Sara Fort, Isidro Navarro, Marilena Christodoulo, Marisela Mendoza, Elena Codina
 Universidad Politécnica de Cataluña / Nottingham Trent University / "Ion Mincu" University of Architecture and Urbanism



Rilievo e Rappresentazione del Territorio

Alessio Altadonna, Adriana Arena
Università di Messina





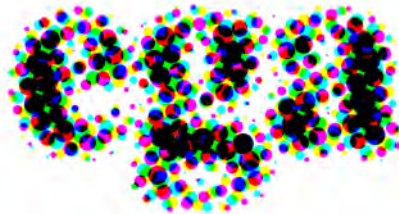
Aerofotogrammetria Scala 1:1000



Orifoto Agea 2019 - Sistema Informativo Territoriale Regionale Geoportale (S.I.T.R.)



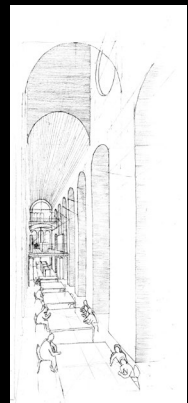
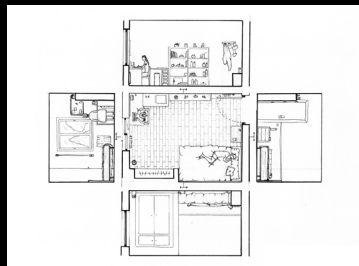
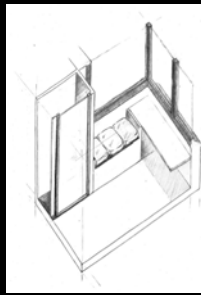
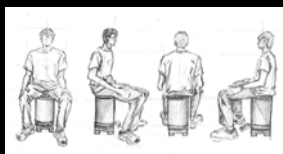
Estratto di Mappa Catastale Scala 1:1000

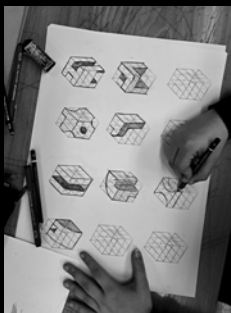
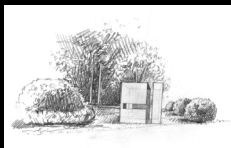


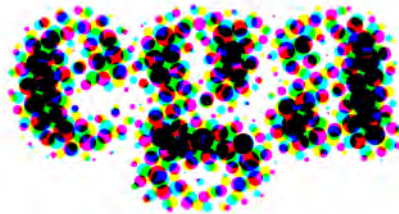
El dibuix com a experiència

Maite Aguado, Maria Amat, Joana Ayxendri, Pasqual Bendicho, Teresa Diez, Carmen Escoda, Queralt Garriga, Salvador Gilabert, Renata Gomes, Hernan Lleida, Hector Mendoza, Andrea Ortega, Oriol Ribo, Erik Soles, Isidre Santacreu, Bruno Seve, Judit Taberna, Isabel Zaragoza.

Escola Tècnica Superior d'Arquitectura de Barcelona (ETSAB)







Ciudad & Infancias

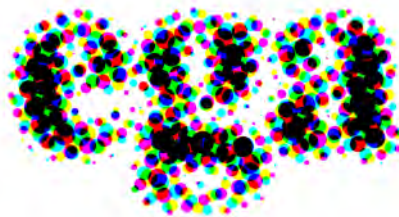
Bruno Seve, Raúl Avilla-Royo, Edith Cota Castillejos, Fabricio Lázaro Villaverde, Juan
Manuel Gastellum
ETSAB –UPC – FADU UABJO



2023 Carrasquedo

2025 Josefina Ramos





Jujol Drawing Workshop - 2024

Isabel Zaragoza, Renata Gomes

RA / ETSAB / UPC, Cátedra Jujol + *Universidade Lusófona, Lisboa - Roteiros*

