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Masaya Ishikawa
＋
田谷 修一郎
Shuichiro Taya

design and cognition

07 completion

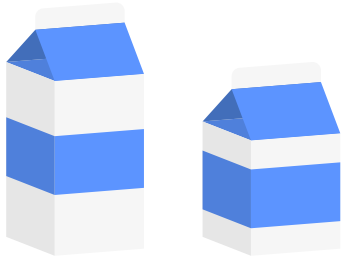
assignment review

stopmotion animation using
similar objects

Find **similar shaped ready-made objects** that can be animated by replacing it (like nails and milk carton) and **make a loop animation** .

point

- combine pixilation to **overcome the shortage of the number of objects**.
- make use of animation tech such as **anticipation**.
- be aware of the fact that **movement takes precedence over form.**



Optical Illusion

Our mechanism for perception sometimes reveals in **unusual circumstances** (2D, non-continuous).

II

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Optical Illusion in motion

・錯視の謎めき

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II

Optical Illusion in motion

・錯視の謎き

Optical illusions can entertain us
(in a interesting and educational way).

Our mechanism for perception sometimes reveals
in **unusual circumstances** (2D, non-continuous).

II

Optical Illusion in motion

- 錯視の謎めき
- Cafewall in motion
- Ninio in motion
- factor reduction of Shepard's Table

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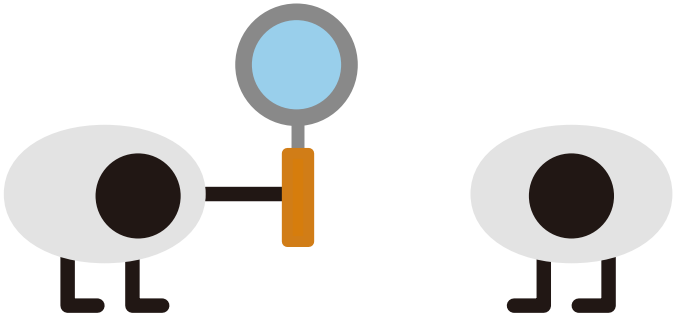
⇩

Clues to the **Mechanism** of Human Cognition

The addition of a **time axis** allows us to move
back and forth between the visible and invisible.

Optical Illusion in motion



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Clues to the **Mechanism** of Human Cognition

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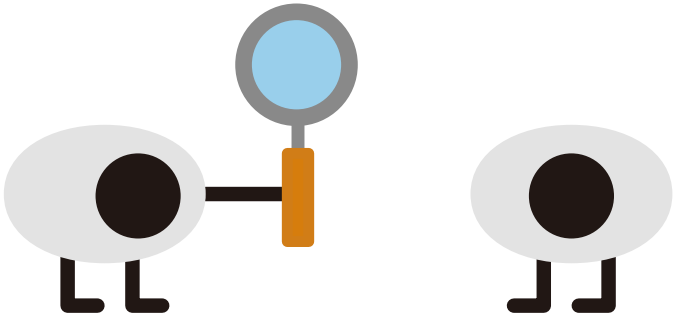
the viewers can recognize it too.

Optical Illusion in motion



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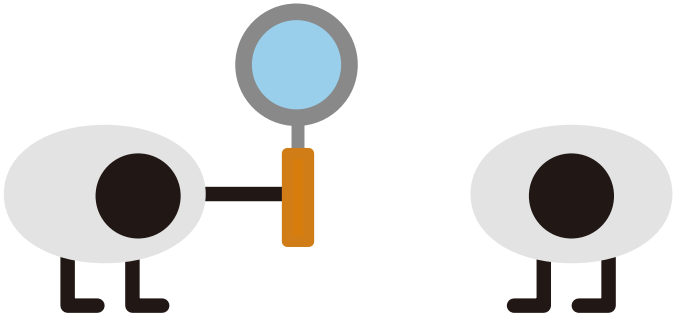
Clues to the **Mechanism** of Human Cognition

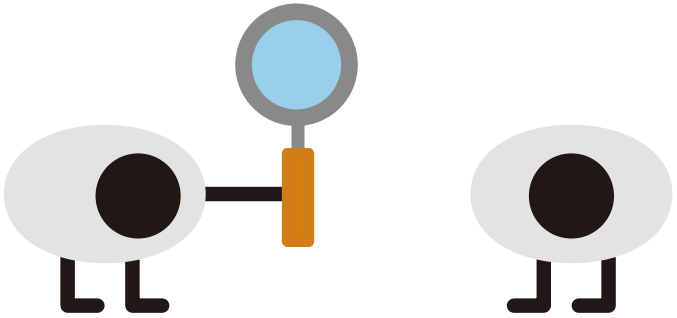
Optical Illusion study



Clues to **new design and** ways of **expression**.

We can develop **strong representations** derived from cognitive mechanisms.

Optical Illusion study



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- Animacy **Heider & Simmel**
  ビーだまビーすけの大冒険

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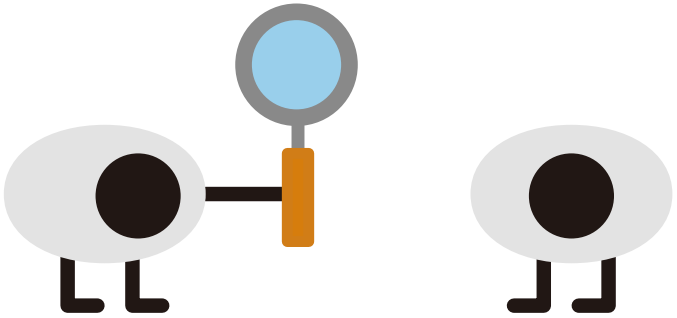

- completion typography
  そうとしかみえない
- biological motion etc...

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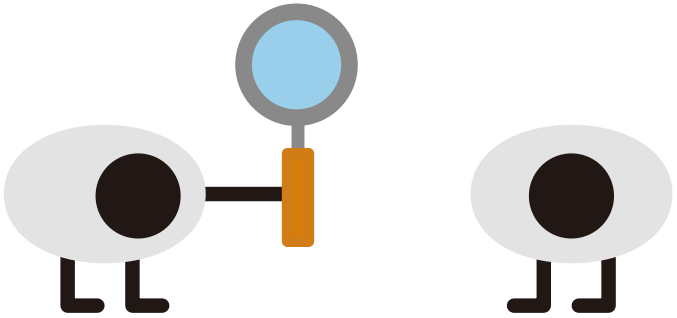


- completion typography
  そうとしかみえない
- biological motion etc...

Clues to **new design and** ways of **expression**.

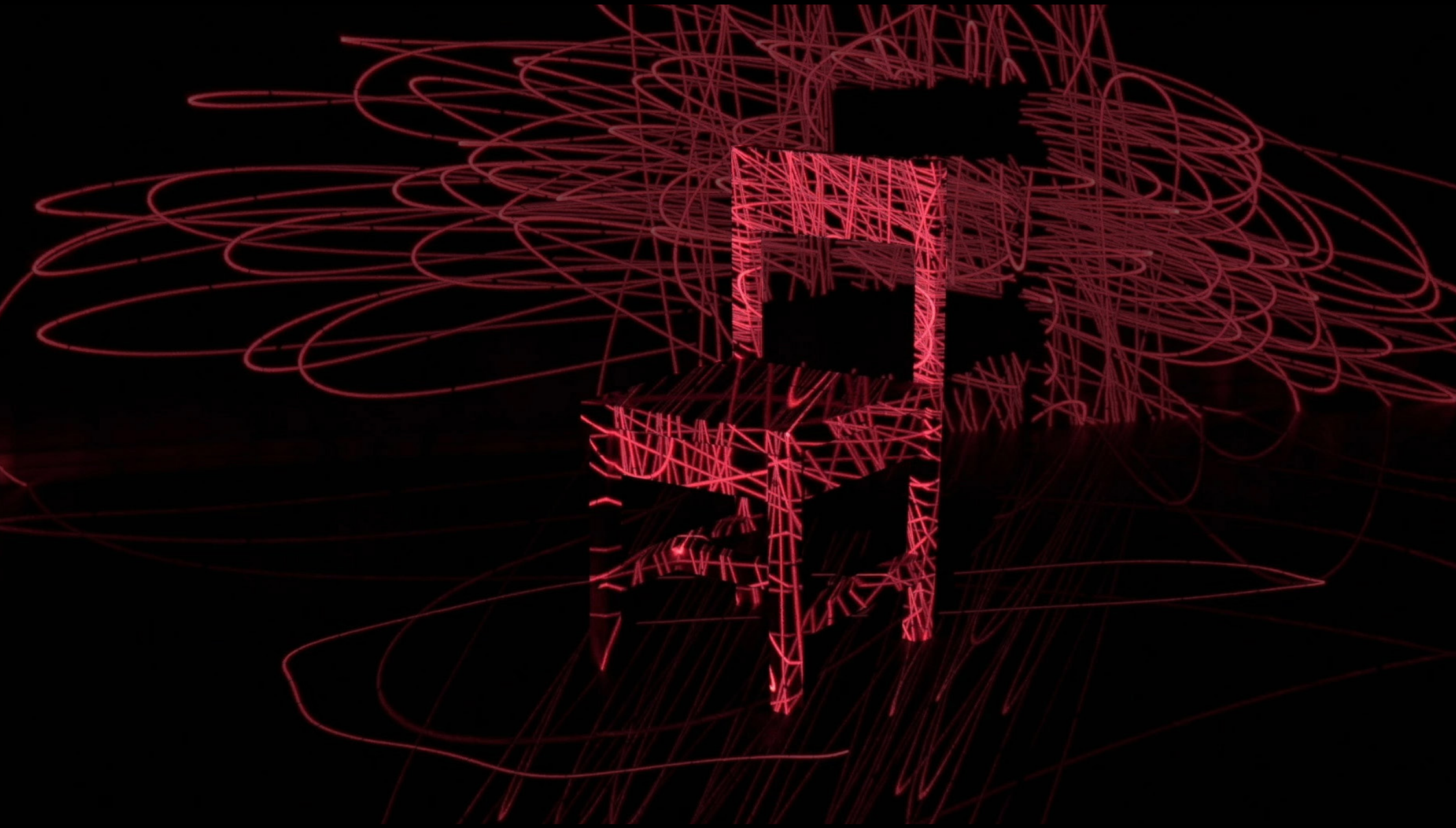
expression based on visual cognition 1

expression based on visual cognition 1

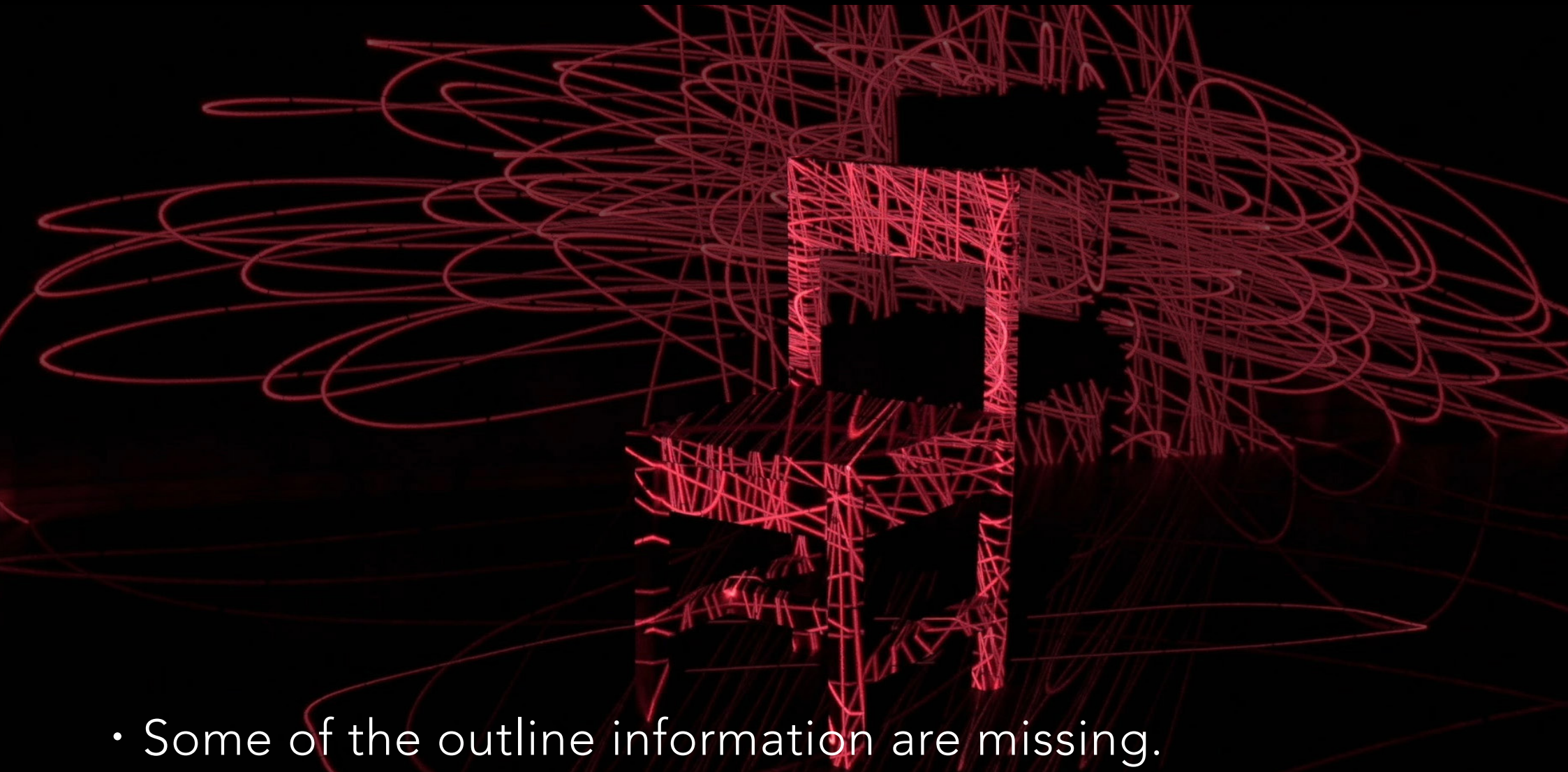
completion

laser frottage, 2008

そうとしかみえない, 2016



Why is this photo **interesting** to look at?



- Some of the outline information are missing.
- Though, the chair is perceptible.

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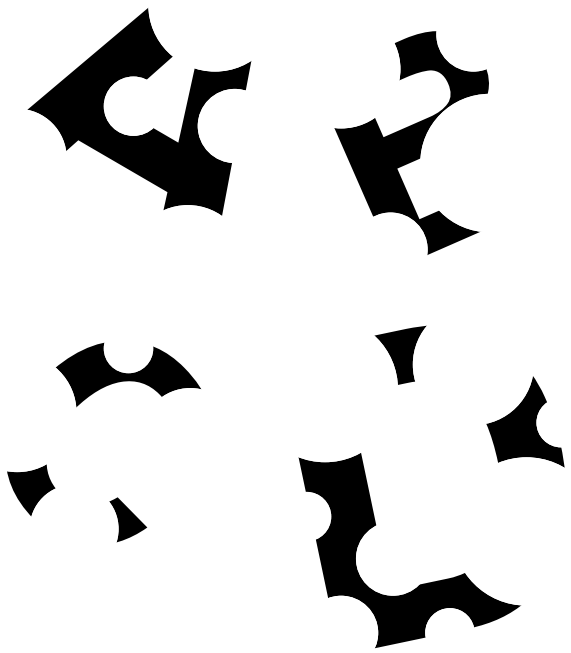
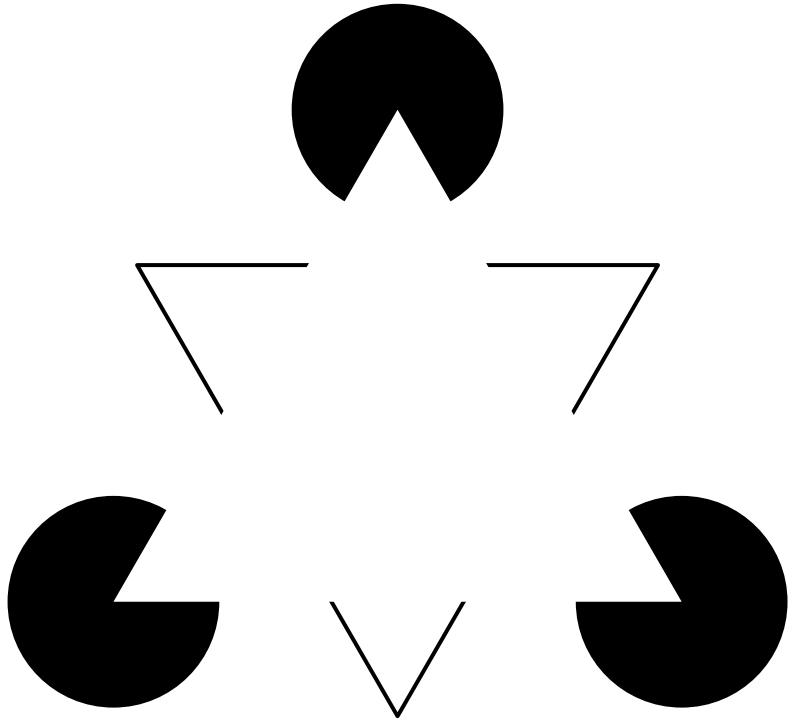
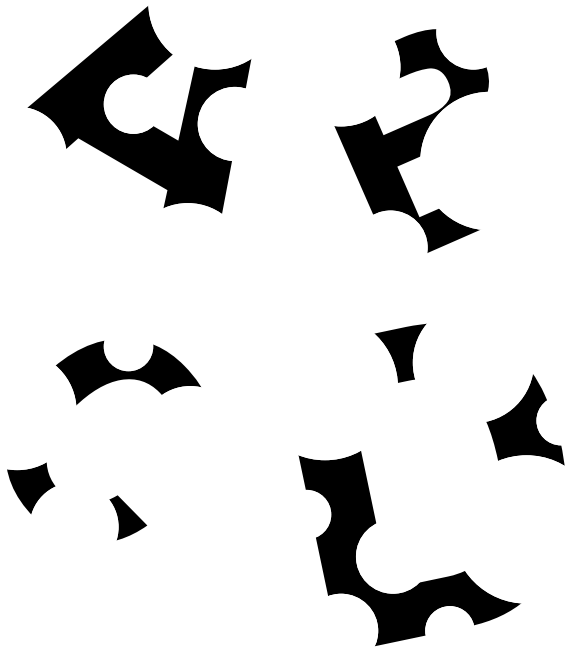
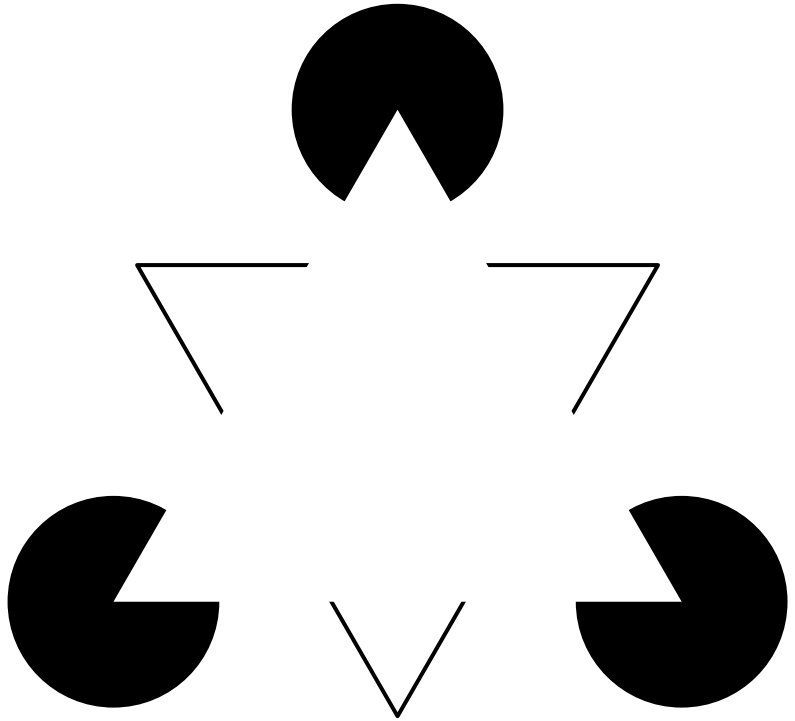
completion





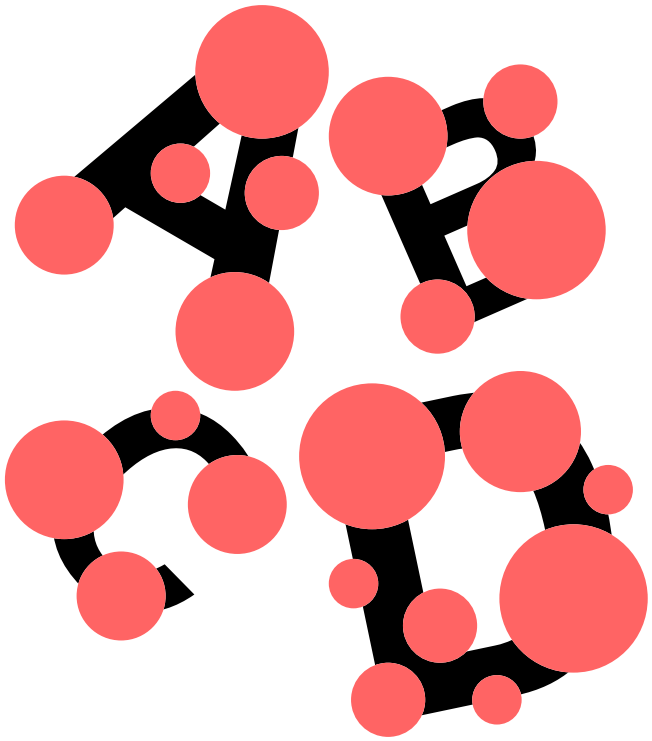
completion



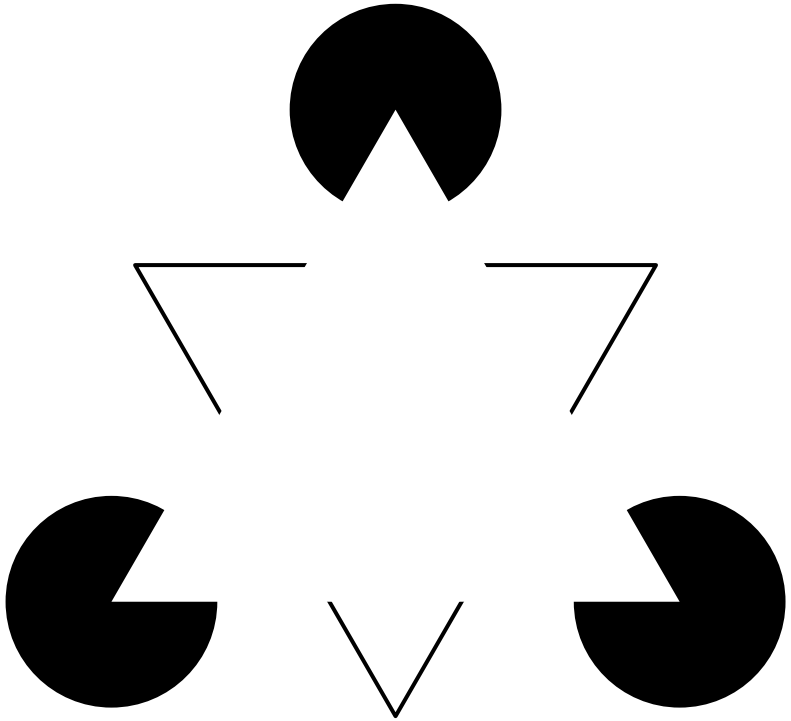


modal completion

completion

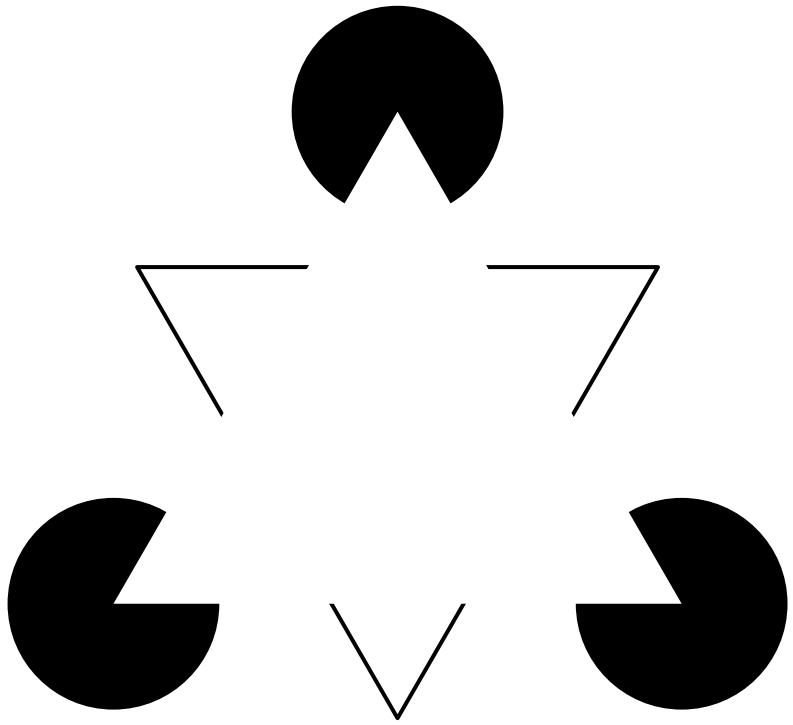


amodal completion



modal completion

completion



illusory, (subjective) contour

modal completion

Kanizza, 1955

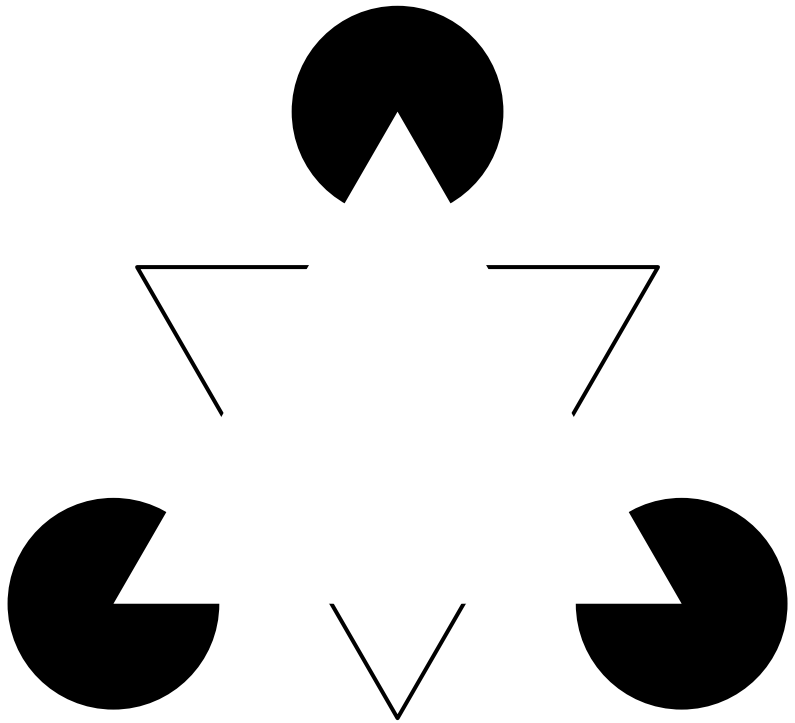
completion

White triangle is visible.

The white triangle
appears to be brighter
than the background.

The white triangle is in
front of the black circles
and a line drawn triangle.

Kanizza, 1955



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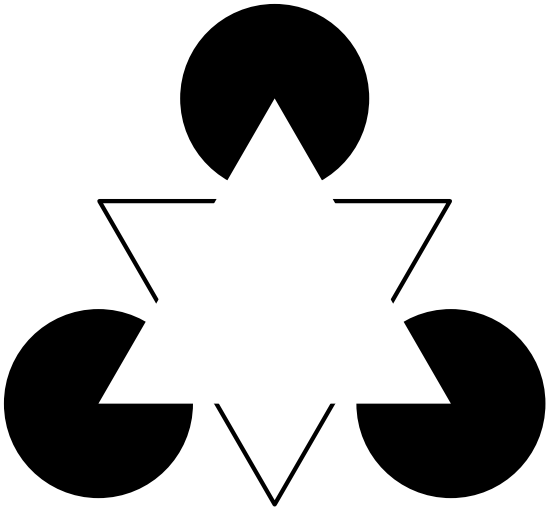
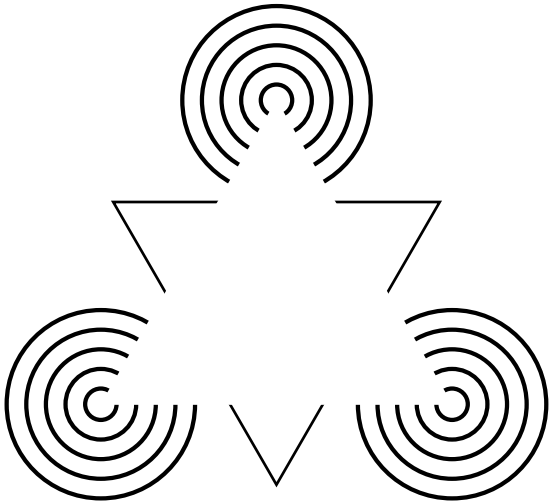
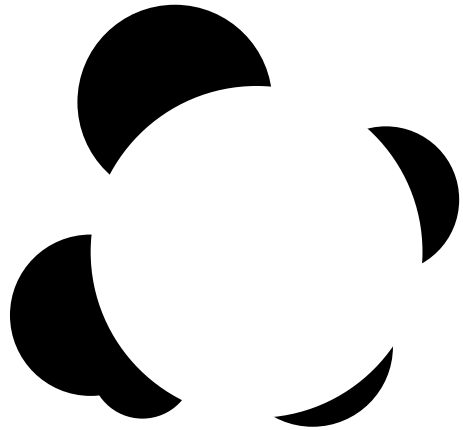
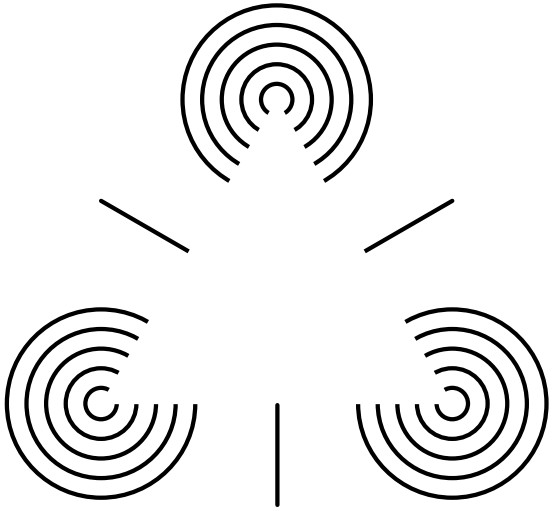
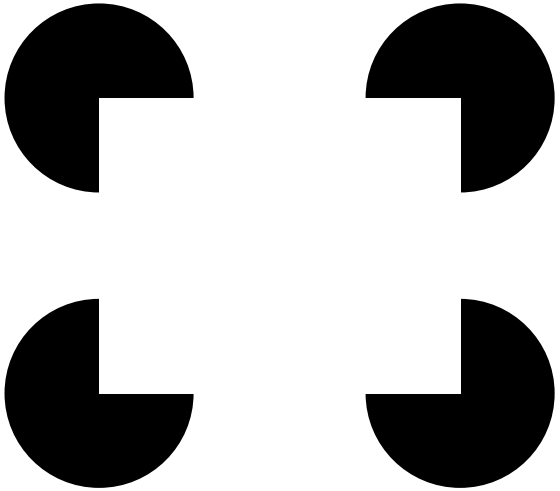
modal completion

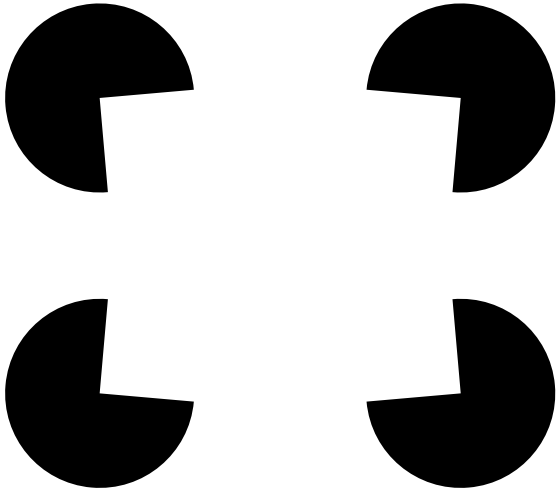


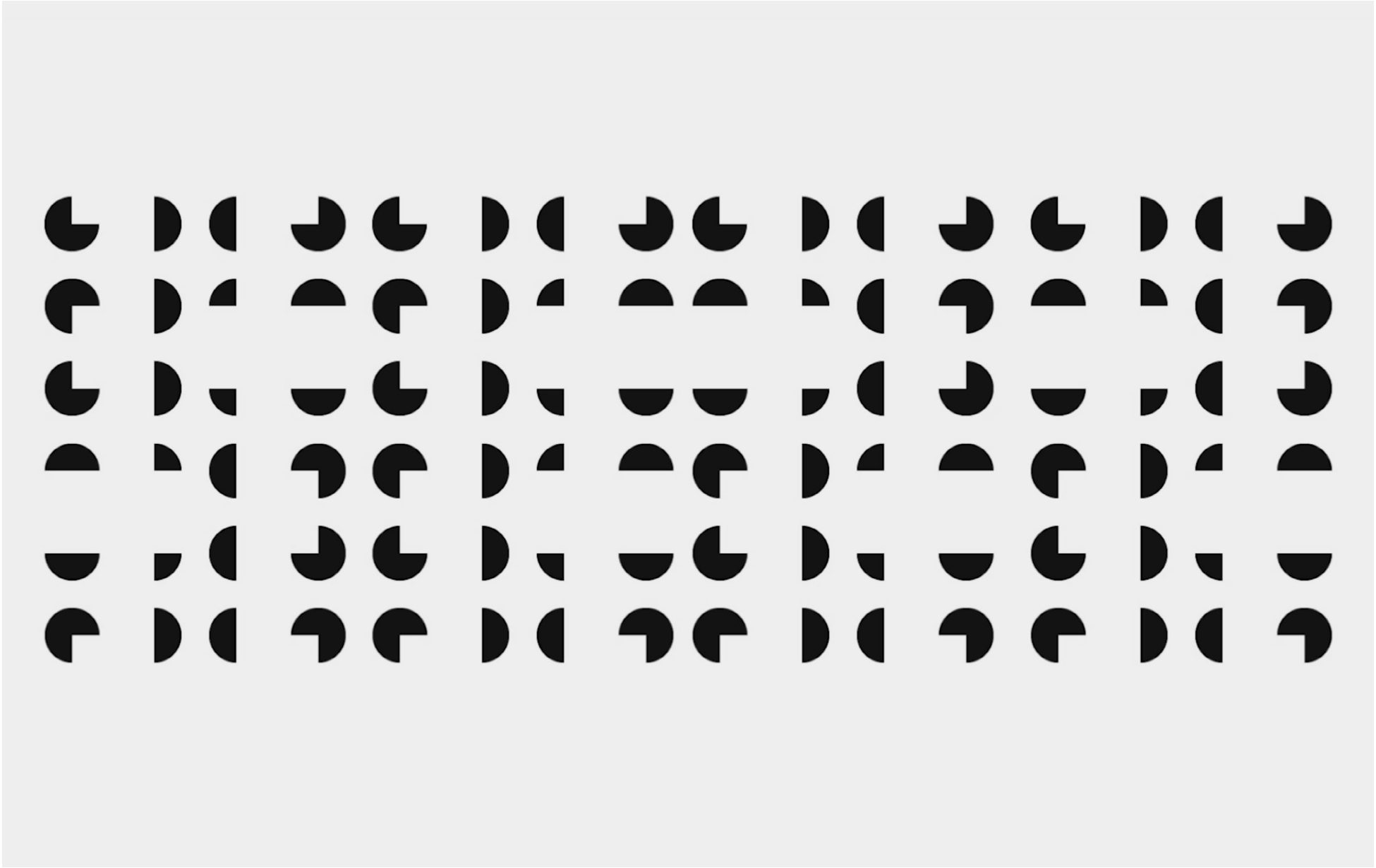


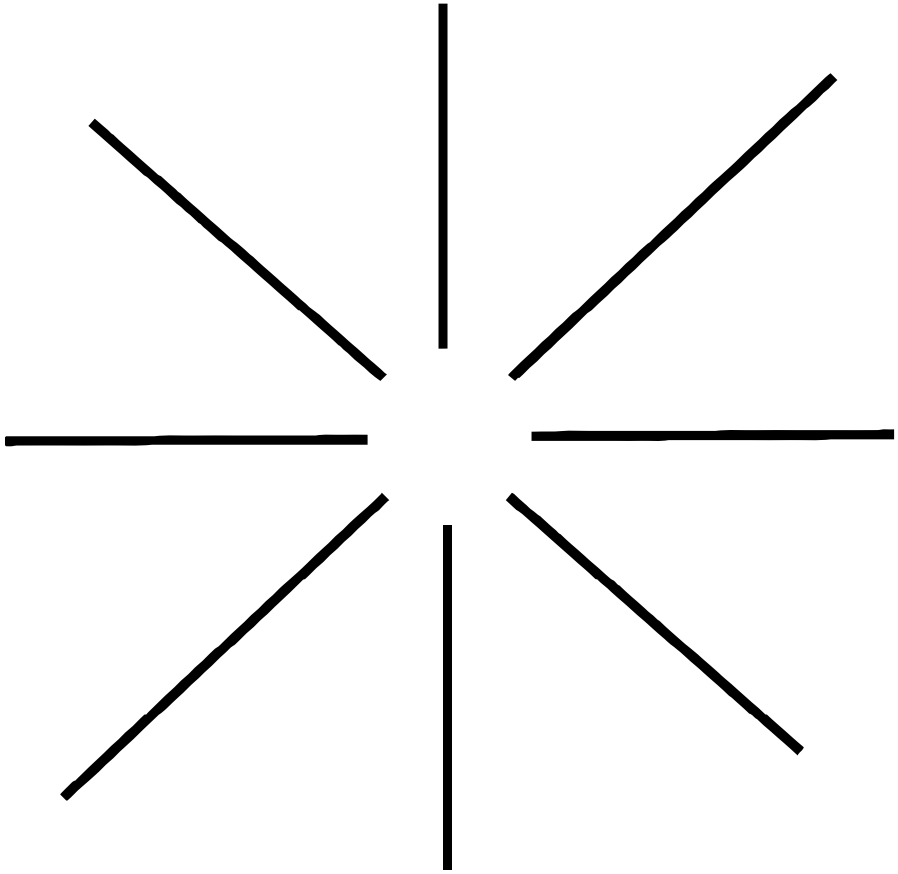


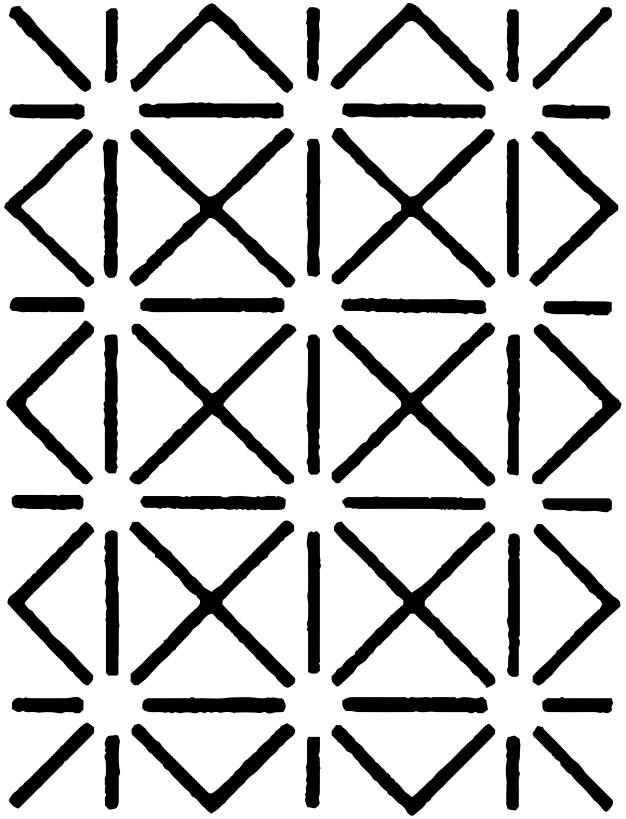






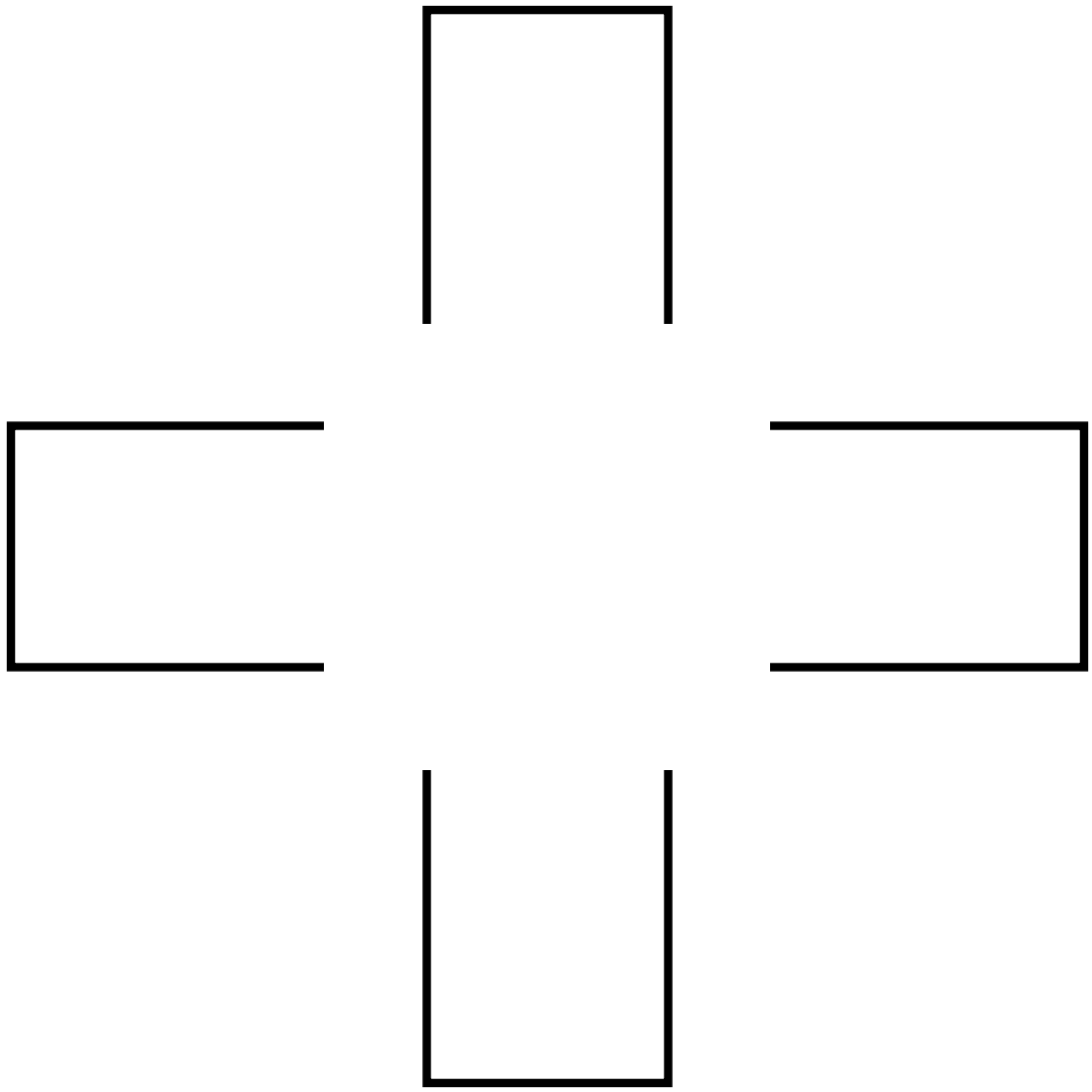




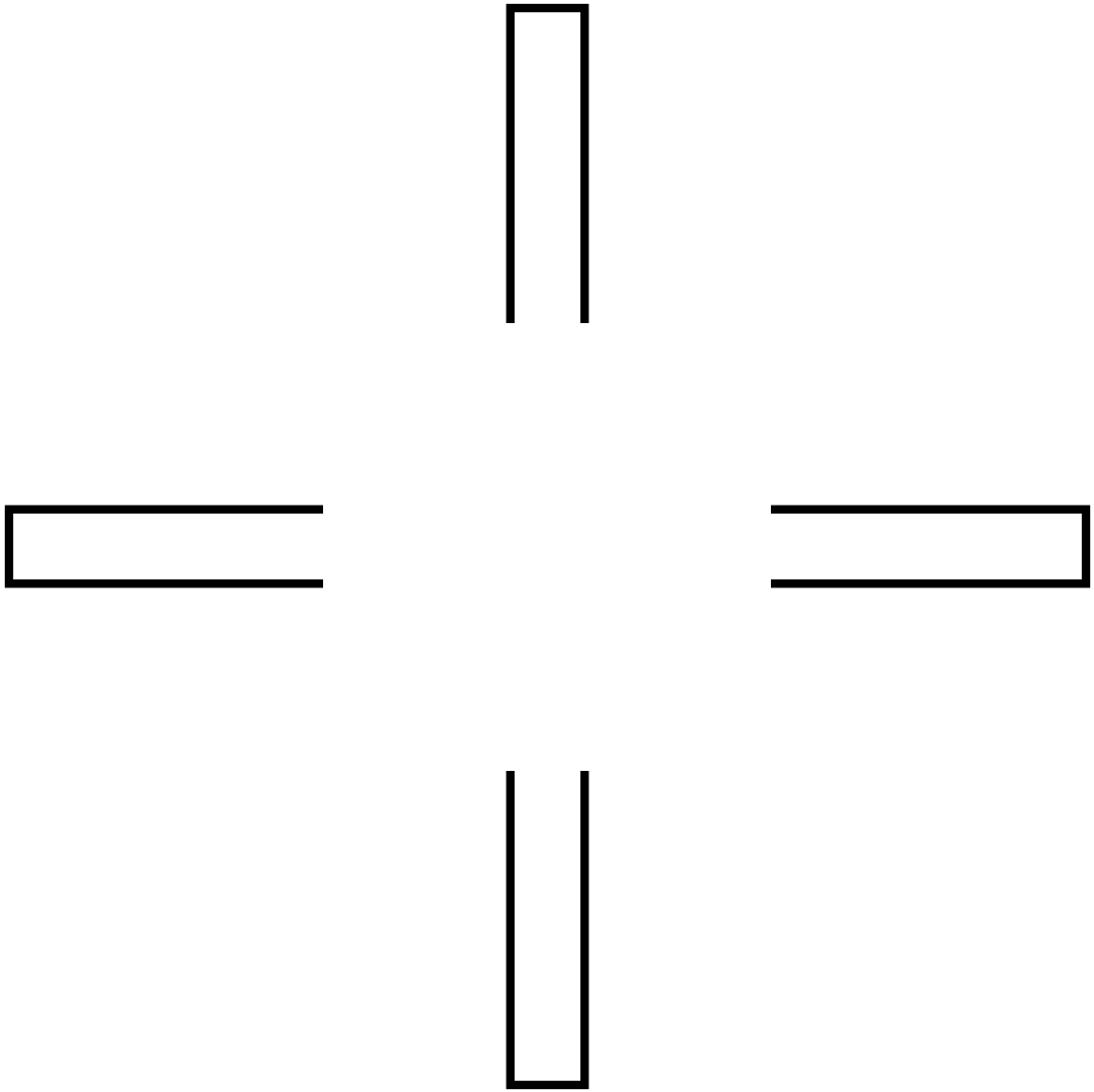


Ehrenstein Pattern, 1941

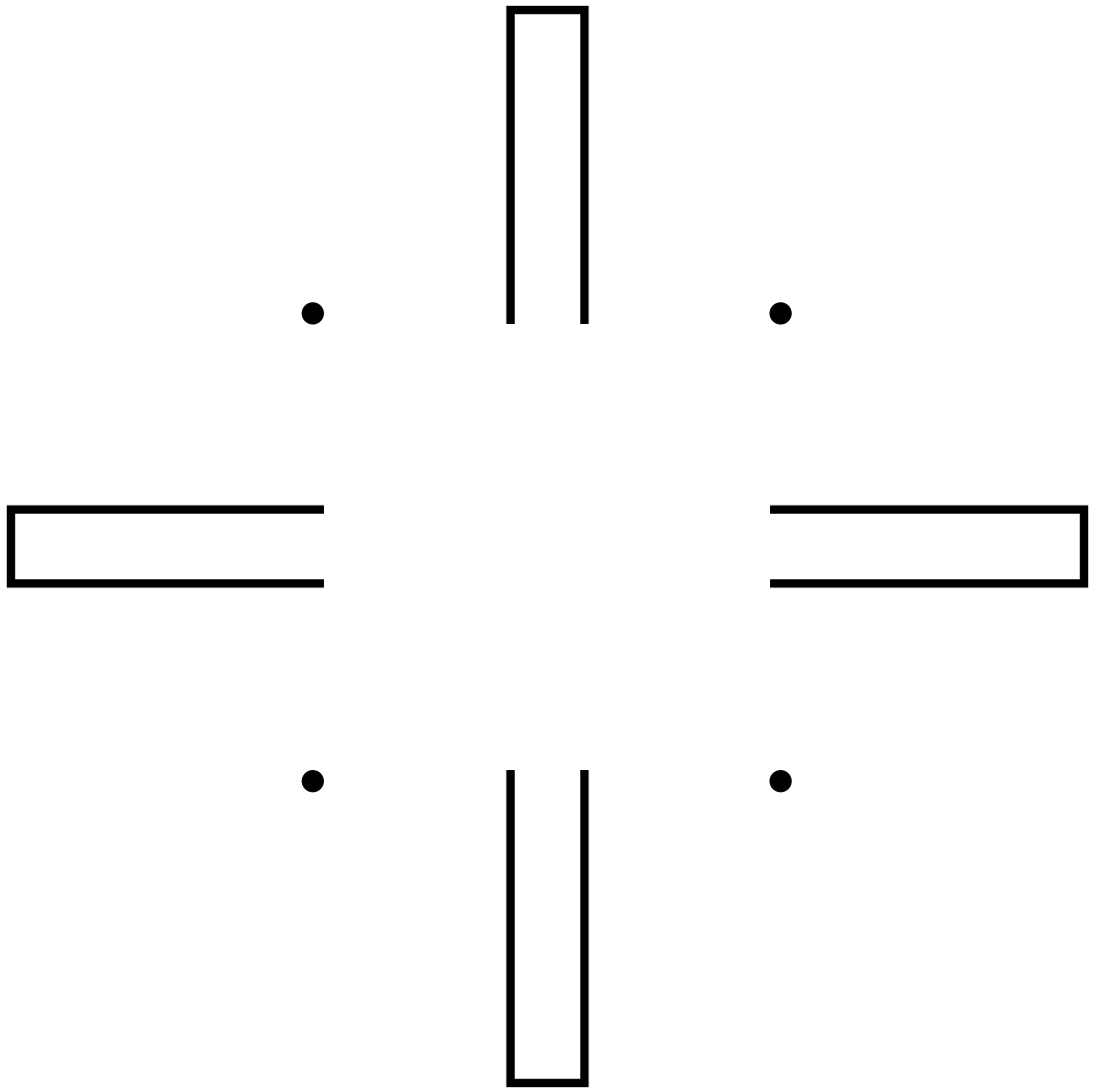
Varin, 1971



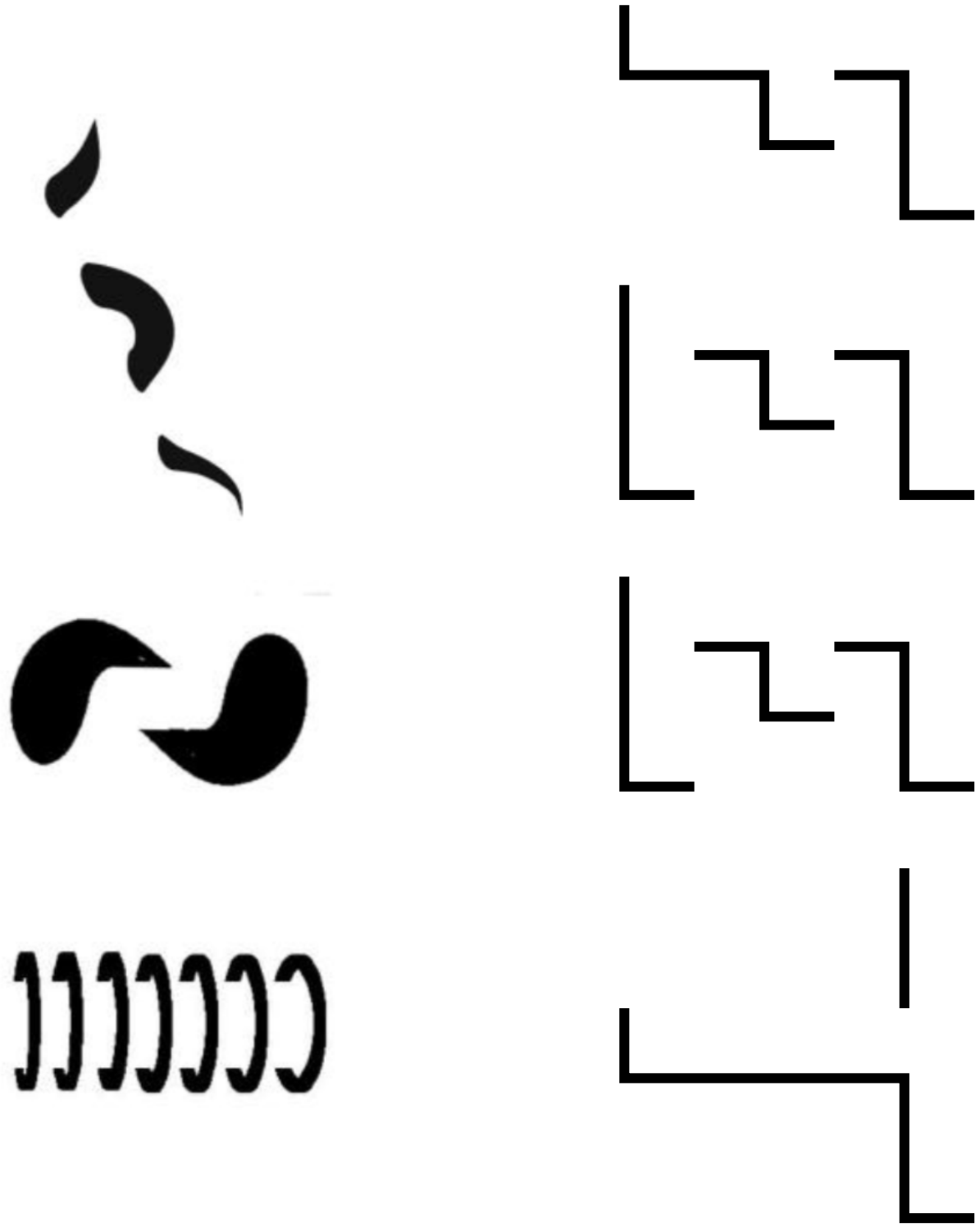
Koffca cross, 1935

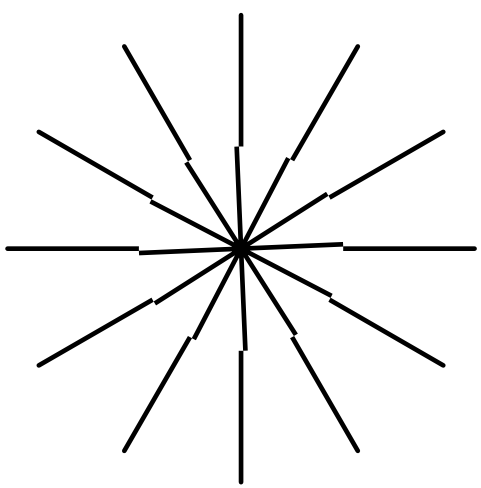


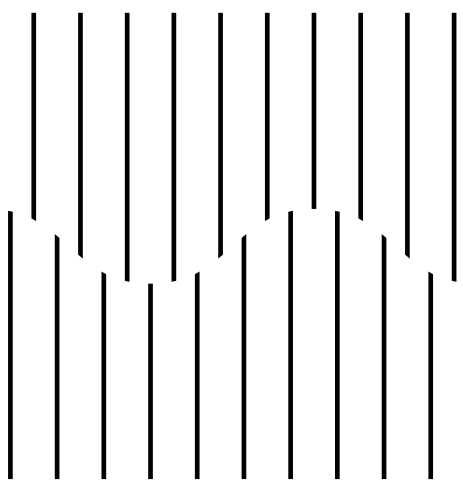
Koffca cross, 1935



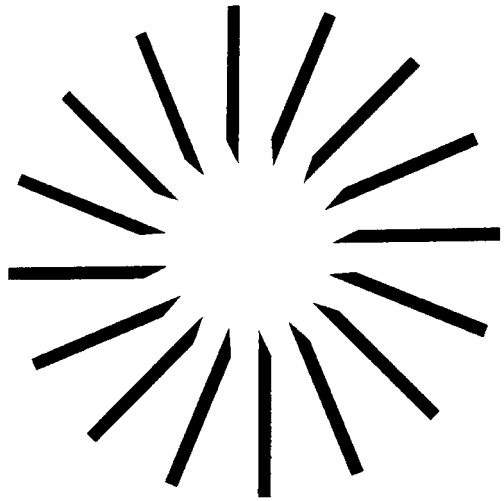
Day & Jory, 1980





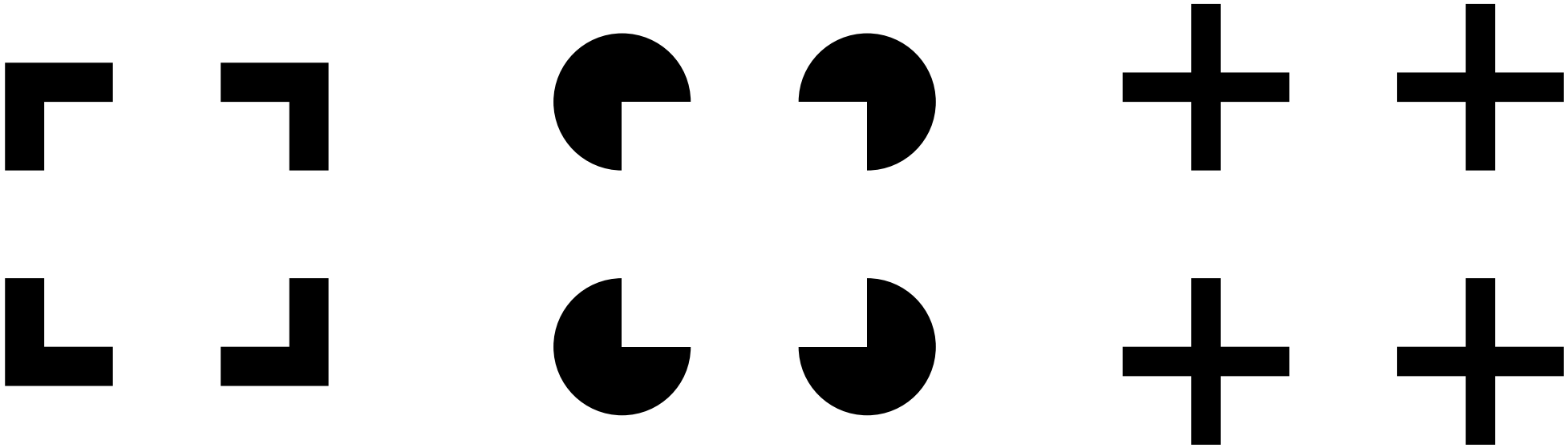


Contours are visible,
no luminance difference.



Contours
unvisible,
luminance
differ.

Which is strong?



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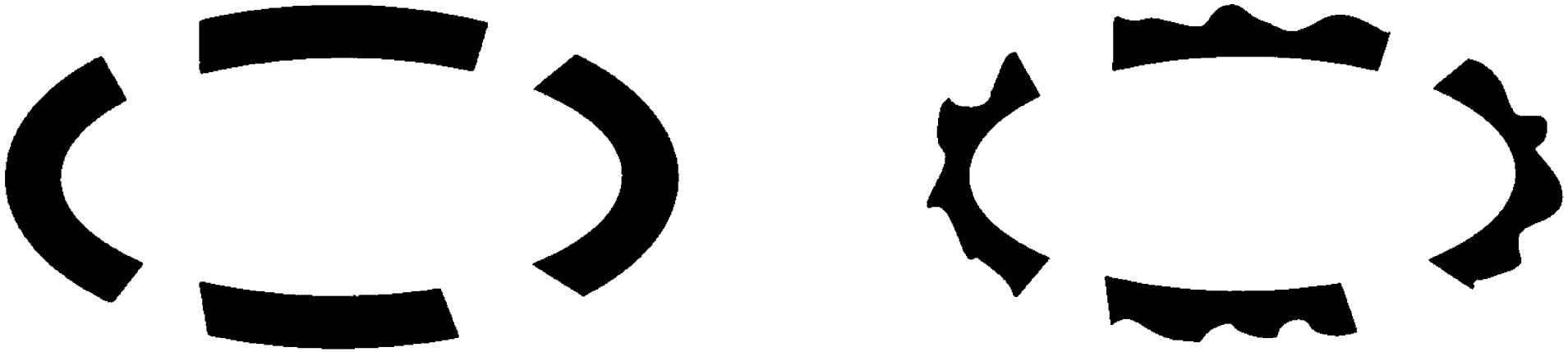

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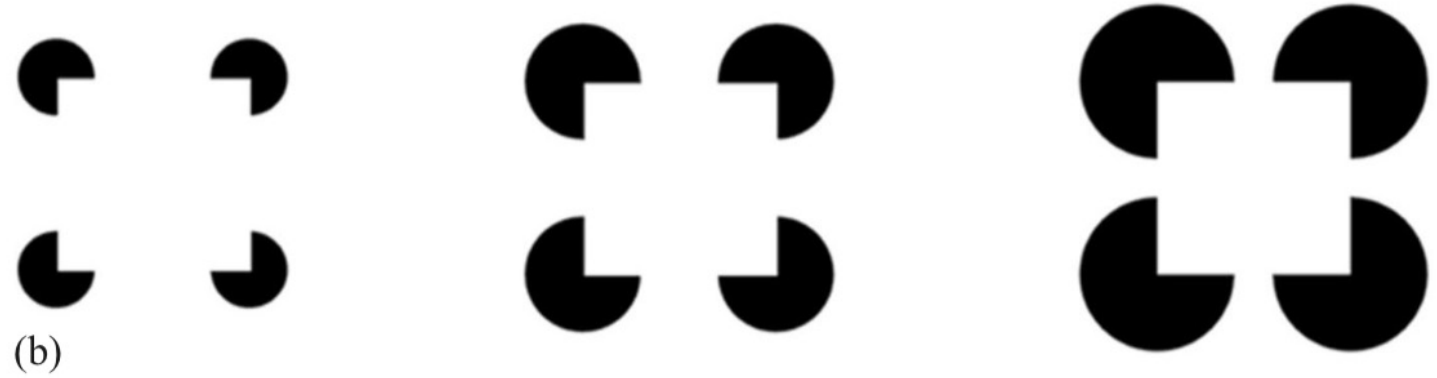
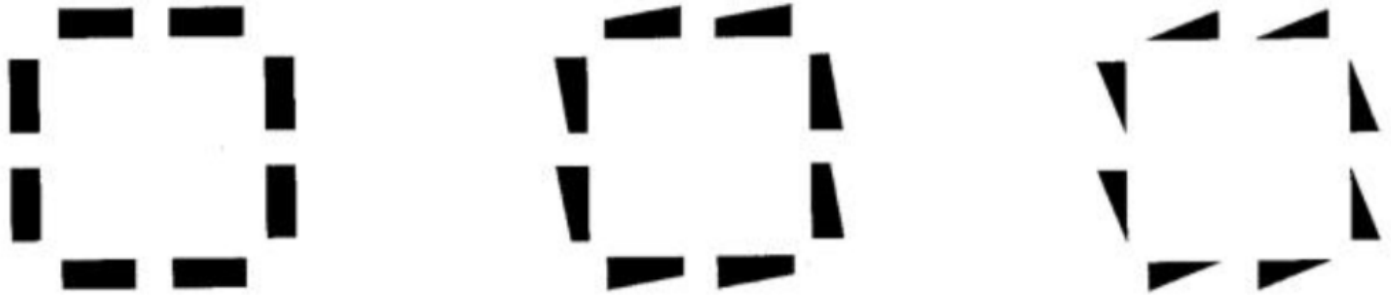
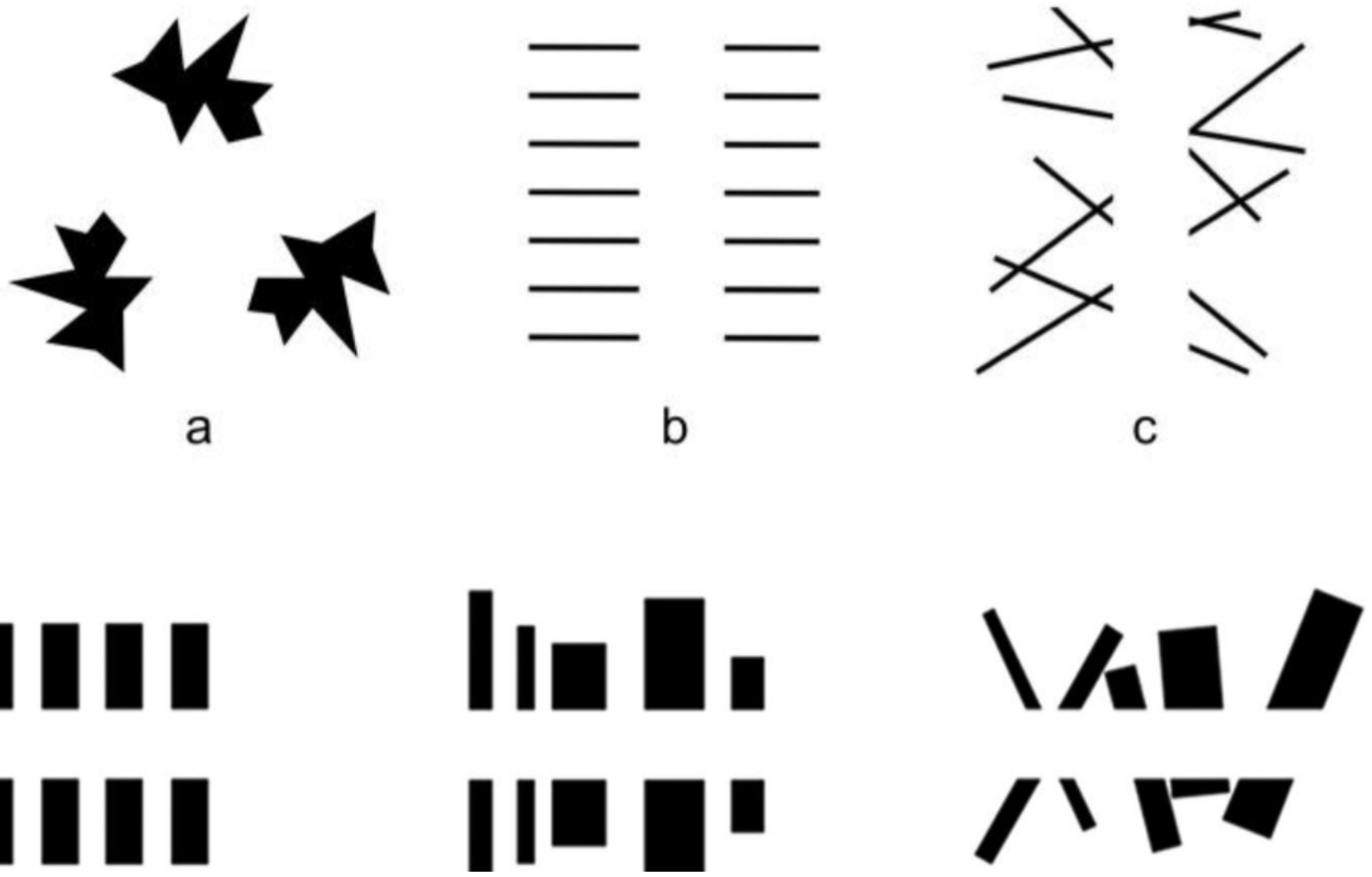


(b)



d e f

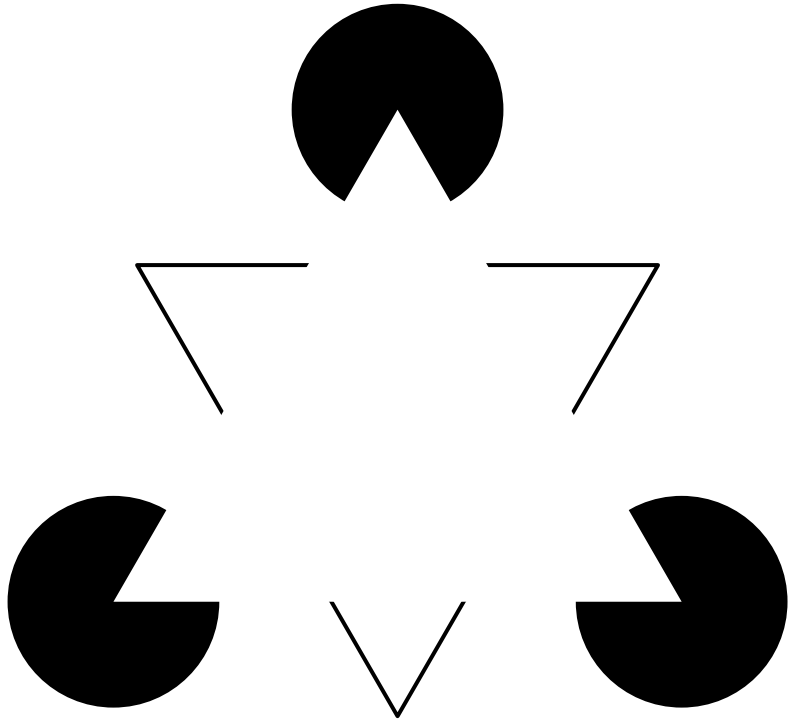
Which is strong?



modal completion

illusory, (subjective) contour

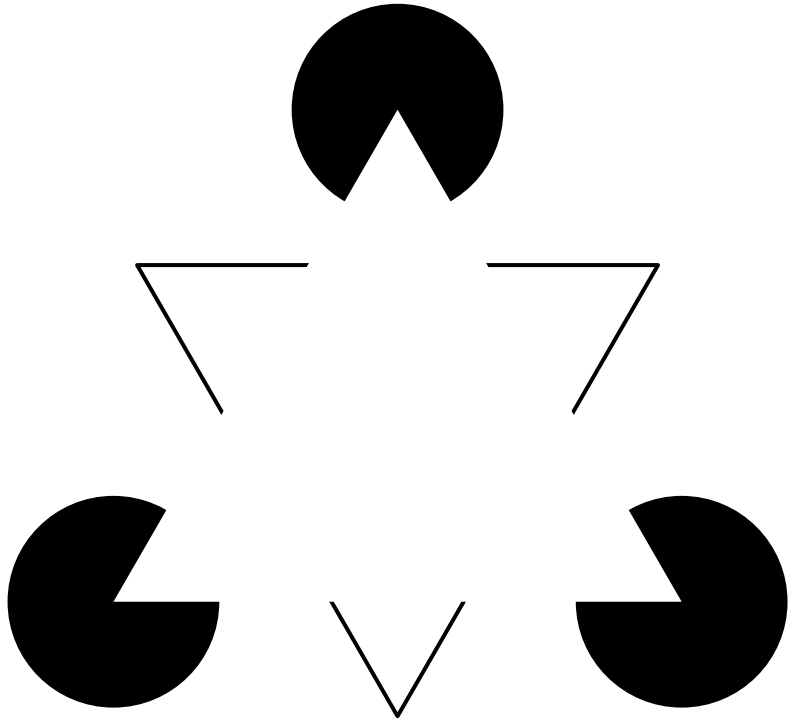
The undrawn contour appears to be complemented.



It is an actual visionary representation.

The object in front, which is **hiding something** is complemented and seen.

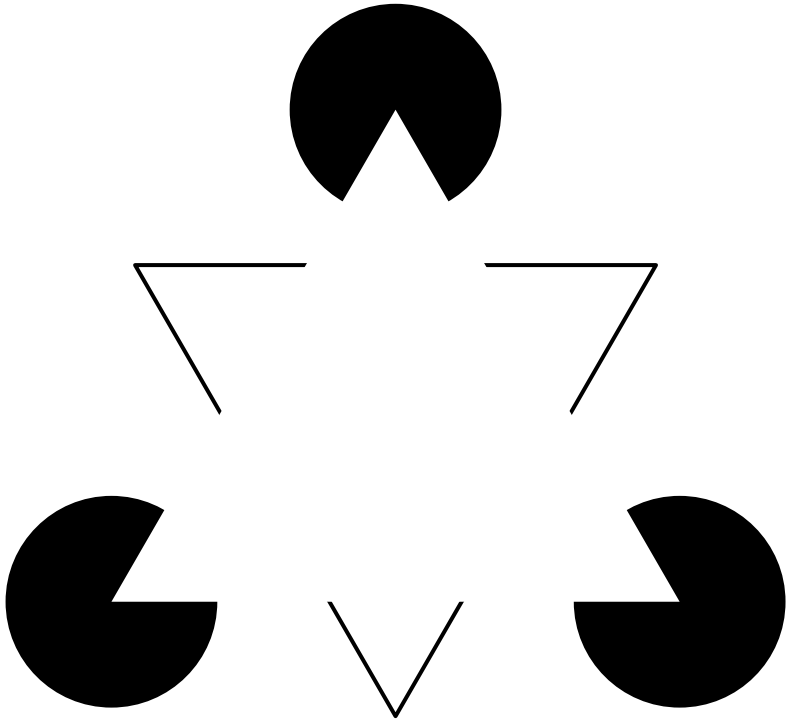
modal completion



hiding

modal completion

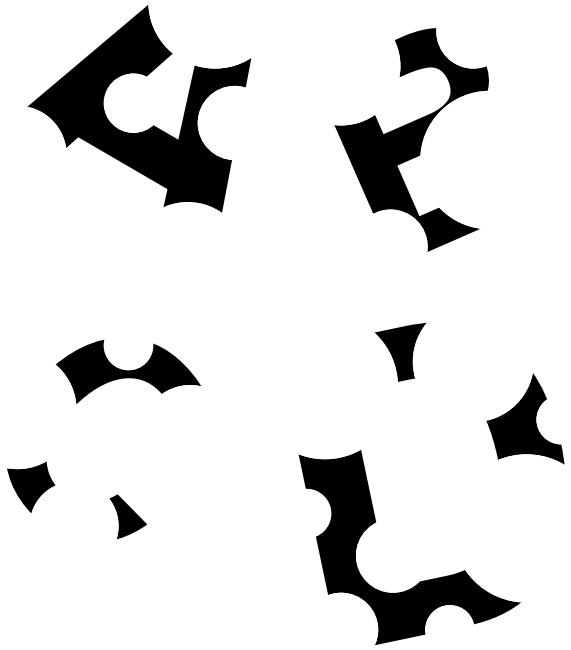
Usui + Ishikawa + Taya, 2024

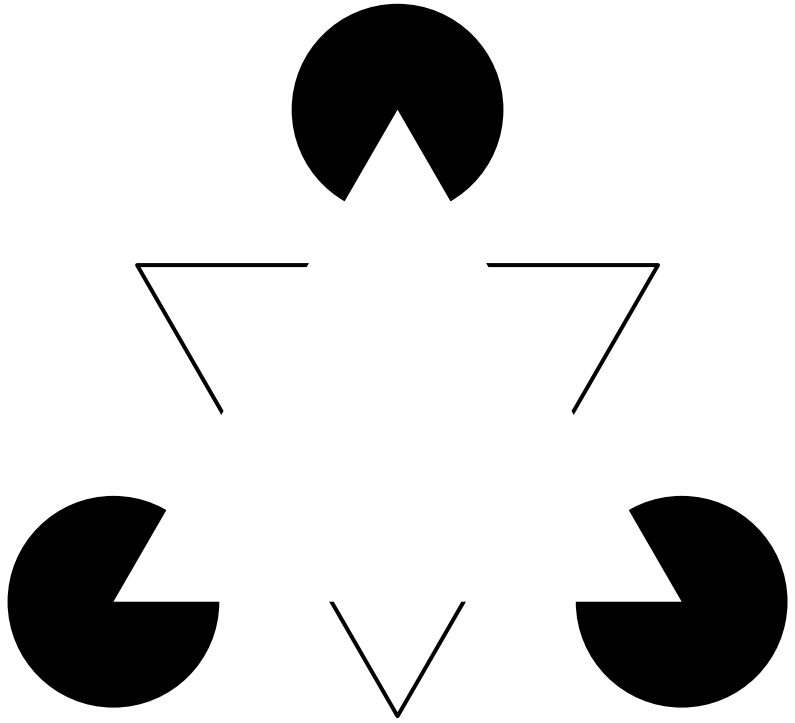


Kanizsa, 1955

hiding

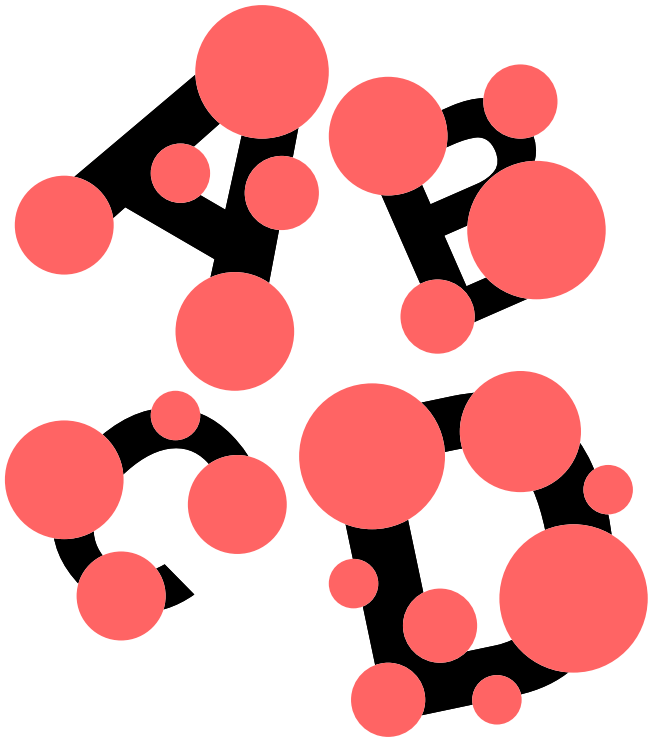
amodal completion



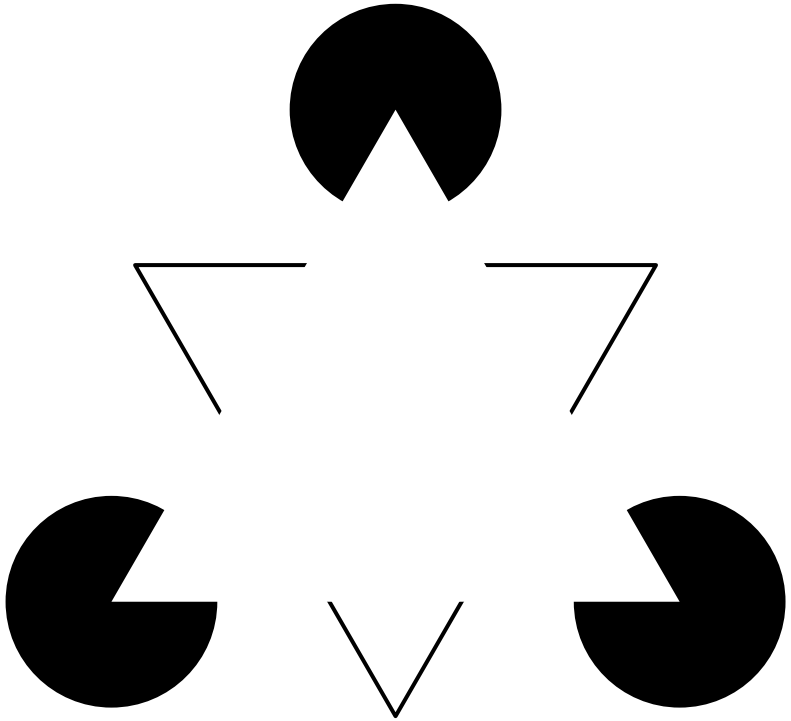


hiding

amodal completion



hidden



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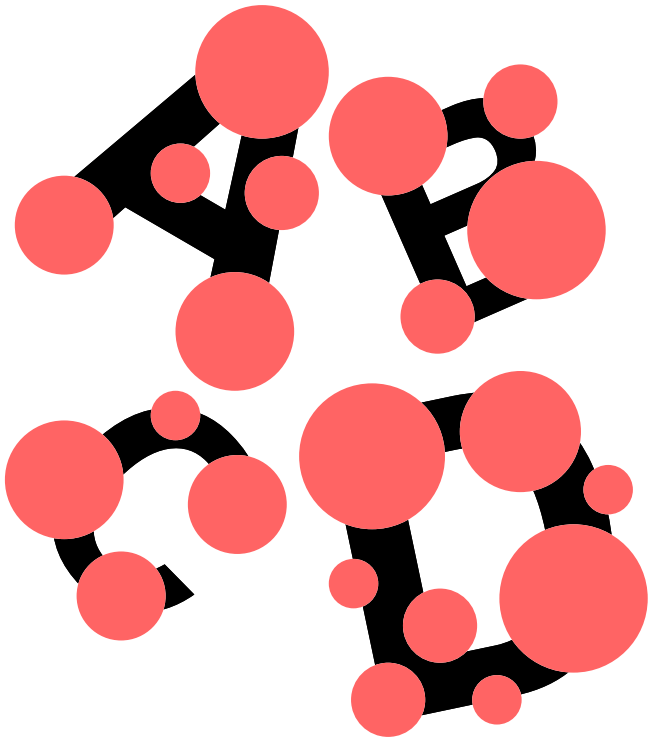
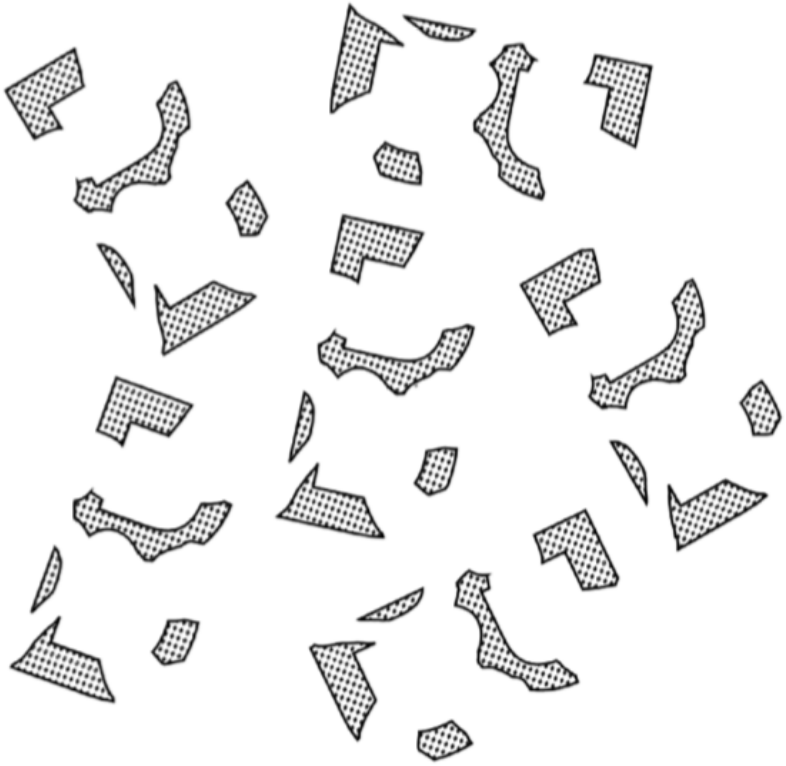


hidden

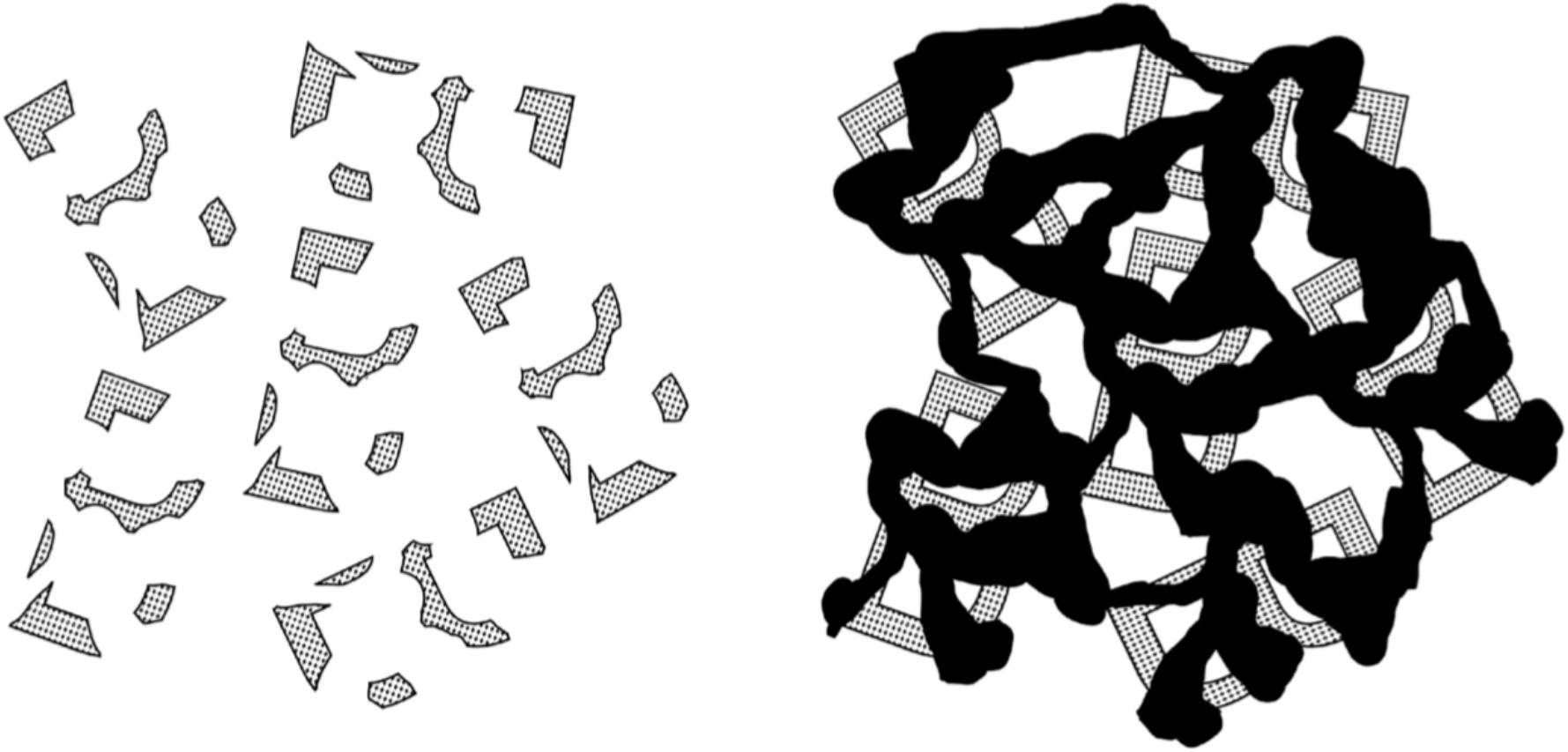
occlusion complement

Completion itself is clear, but without specific perception (contour, color, brightness).

The “hidden one” appears to be complemented because it is in the back.



Nakayama & Shimojo, 1988



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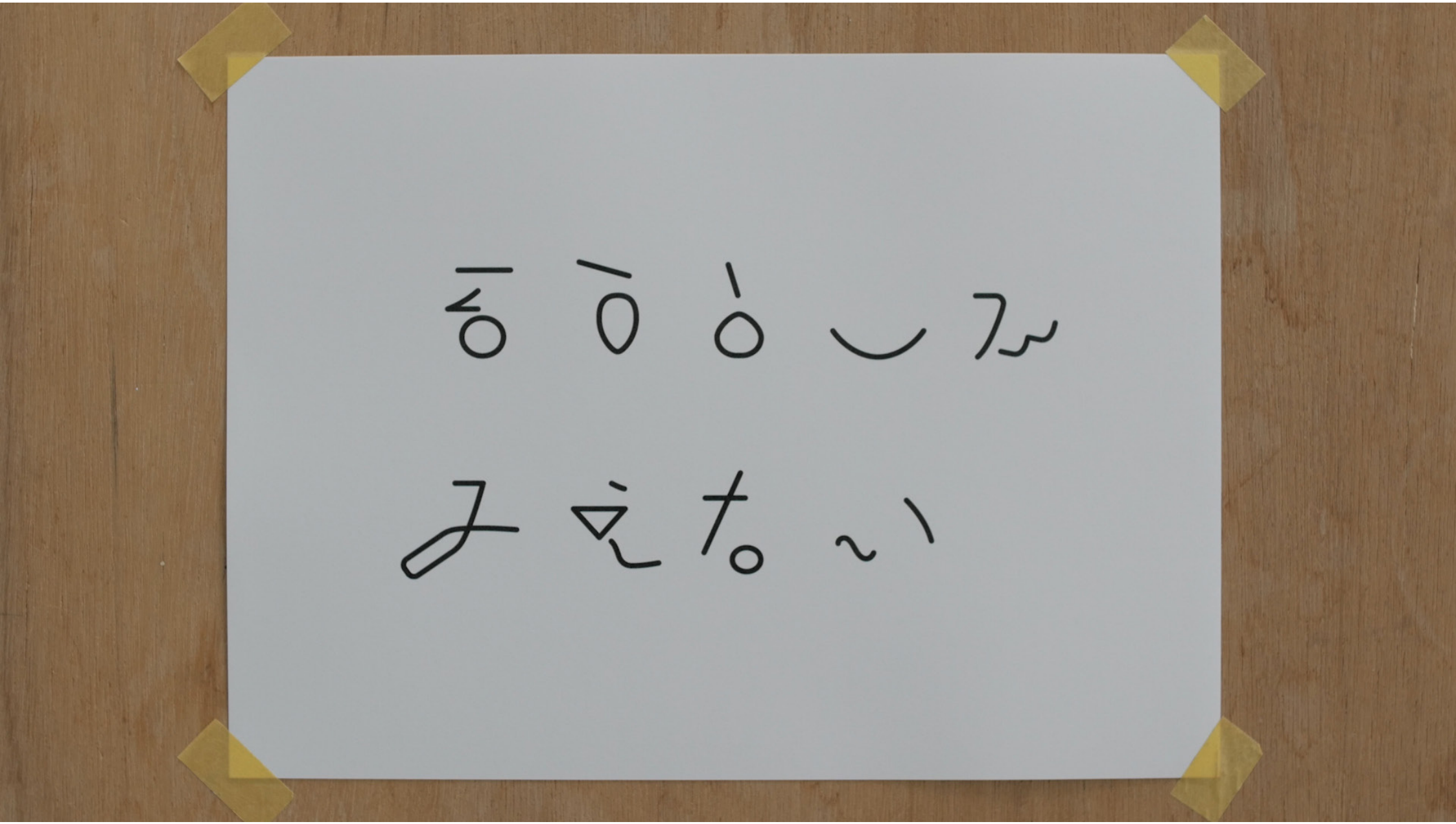
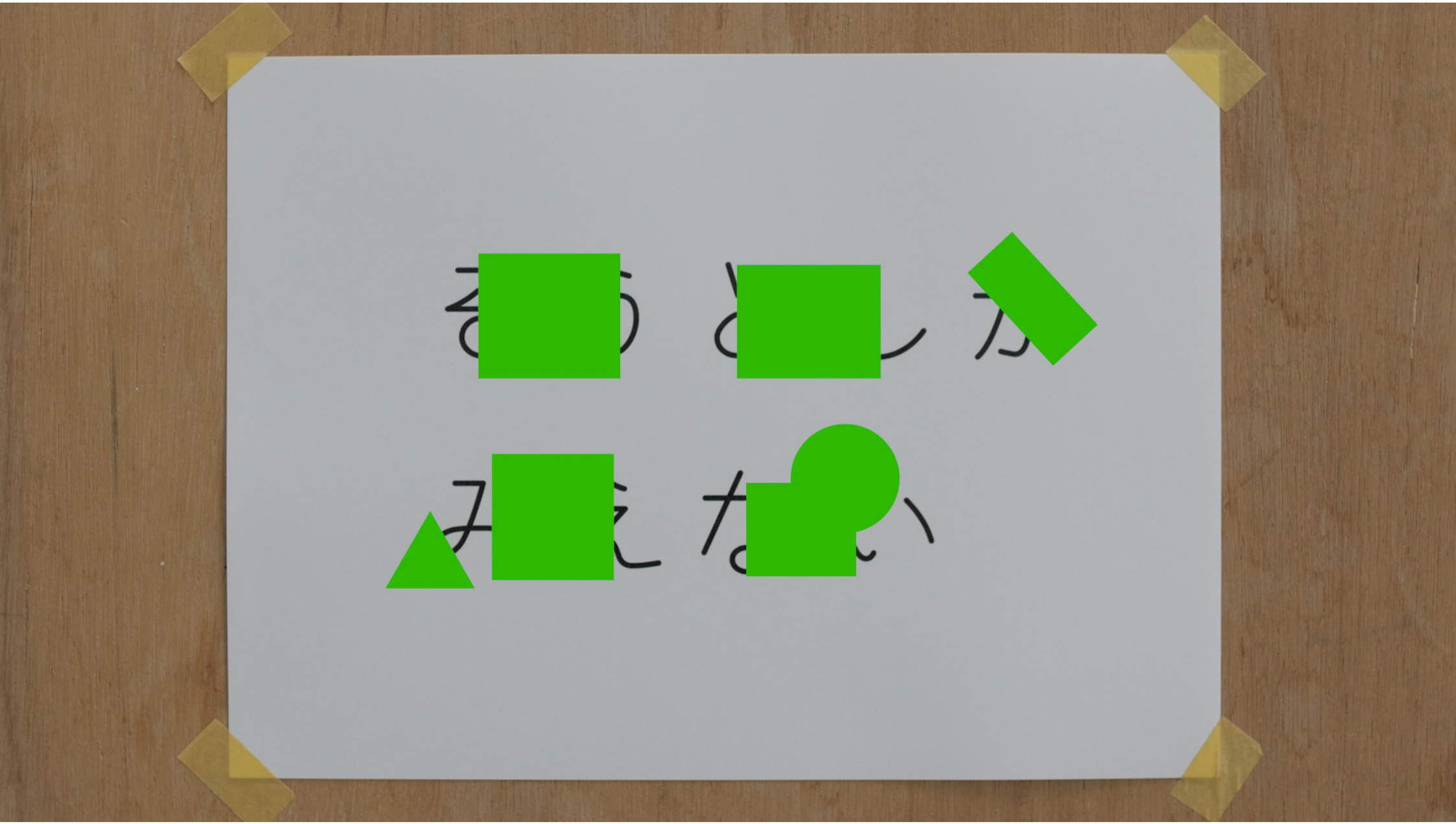
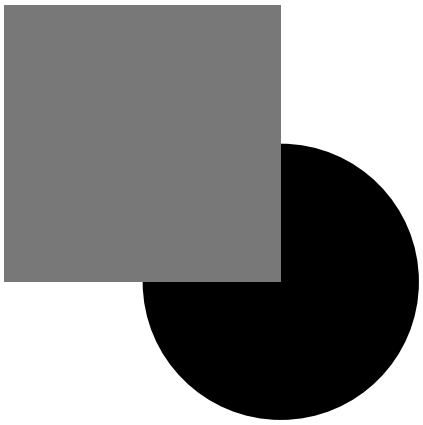
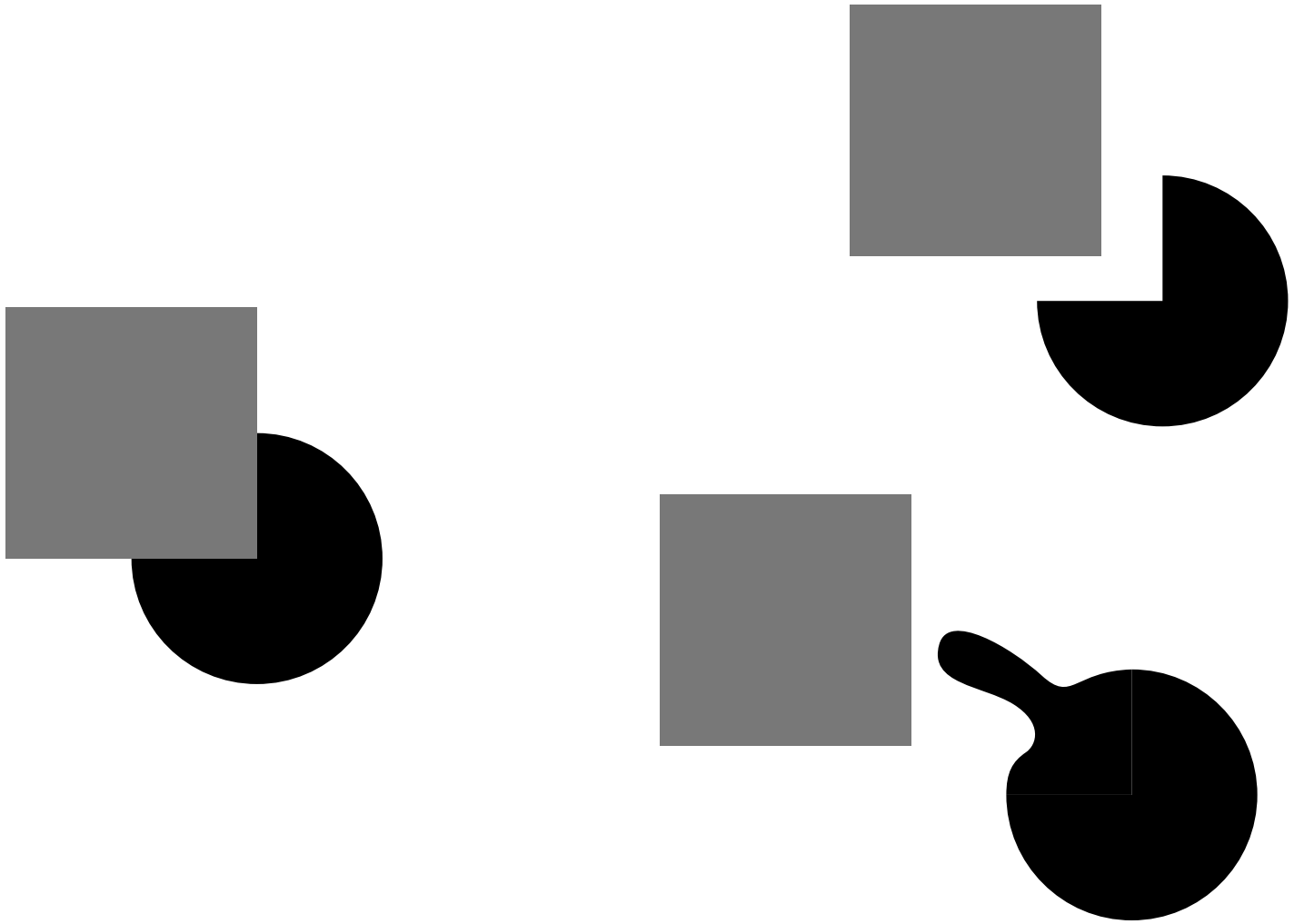

おおきい
みえない


そうとしか
みえない

Occlusion complement characteristics

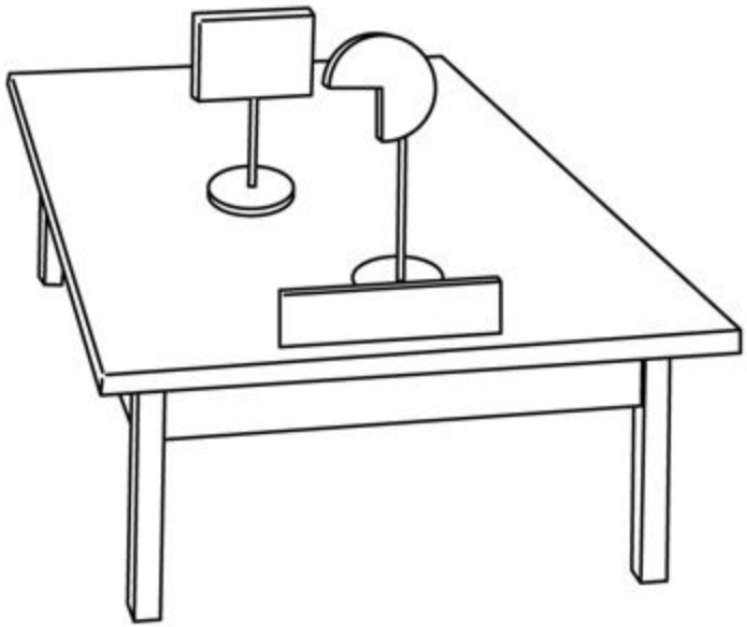


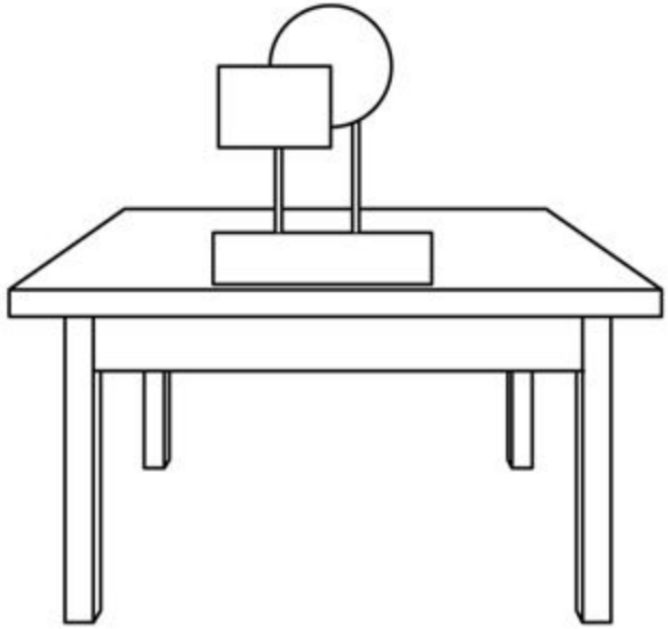
Occlusion complement characteristics



Eliminate special possibilities.

Occlusion complement characteristics

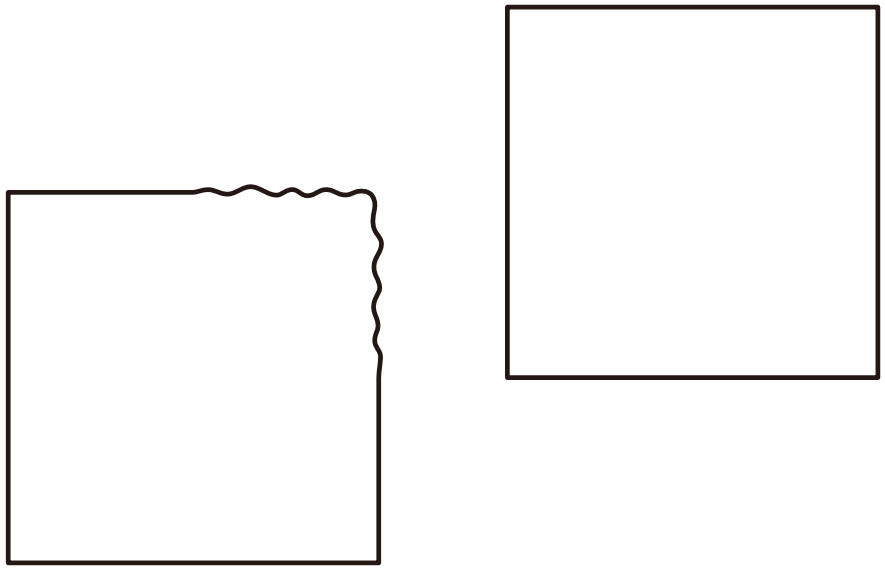




The brain views the world based on the assumption (constraint condition) that “the way we see things does not change significantly even if we change our viewpoint or position slightly.

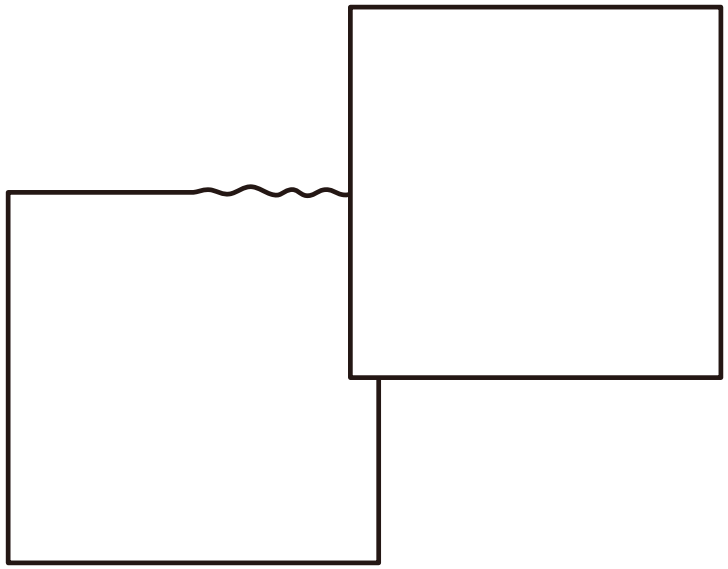
Eliminate special possibilities. Morikawa, 2012

Occlusion complement characteristics



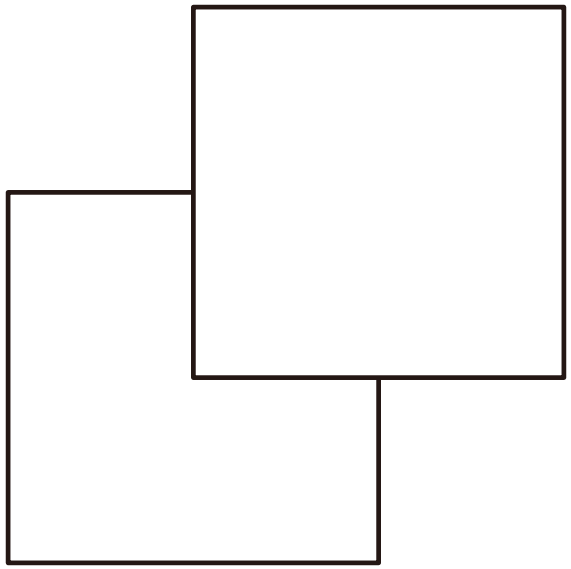
It takes priority over knowledge.

Occlusion complement characteristics



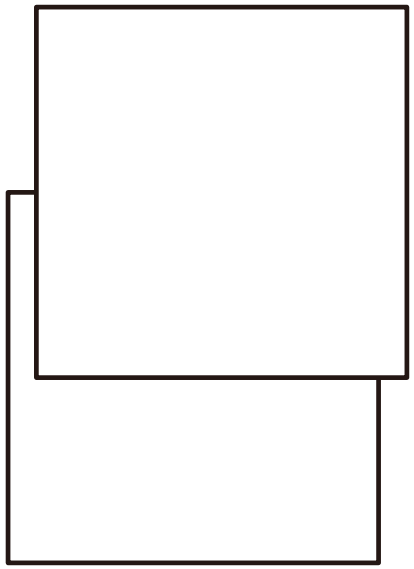
It takes priority over knowledge.

Occlusion complement characteristics



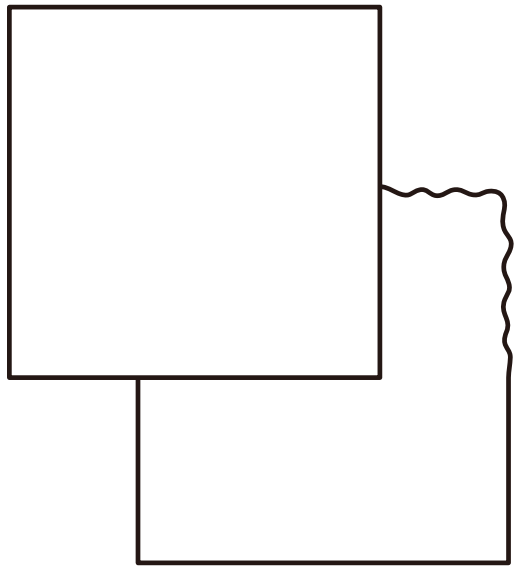
It takes priority over knowledge.

Occlusion complement characteristics



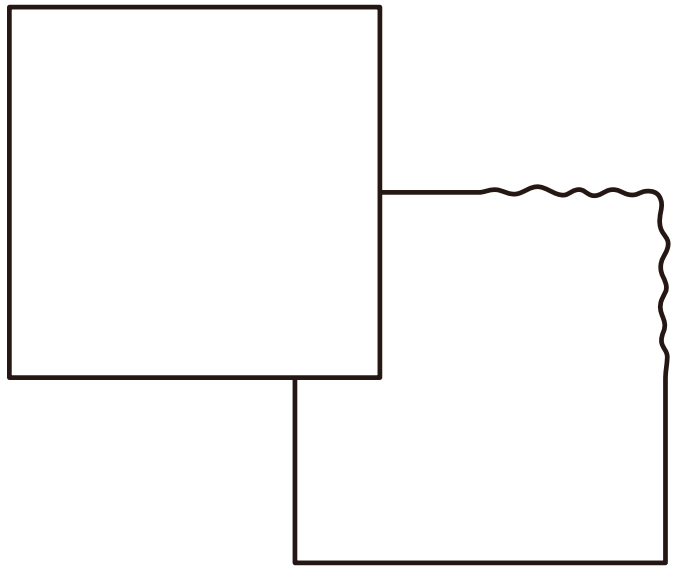
It takes priority over knowledge.

Occlusion complement characteristics



It takes priority over knowledge.

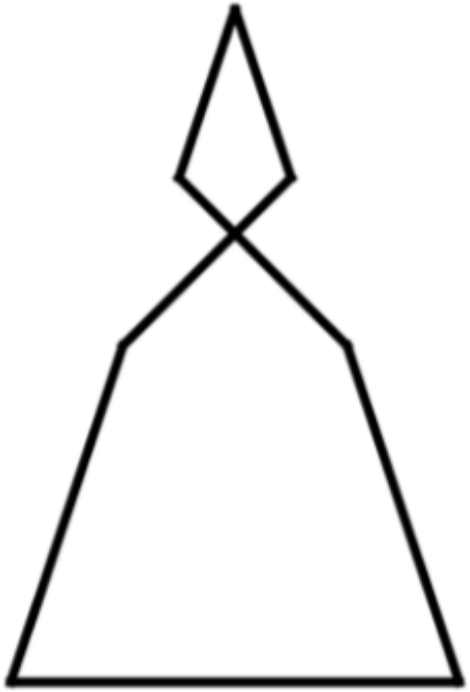
Occlusion complement characteristics

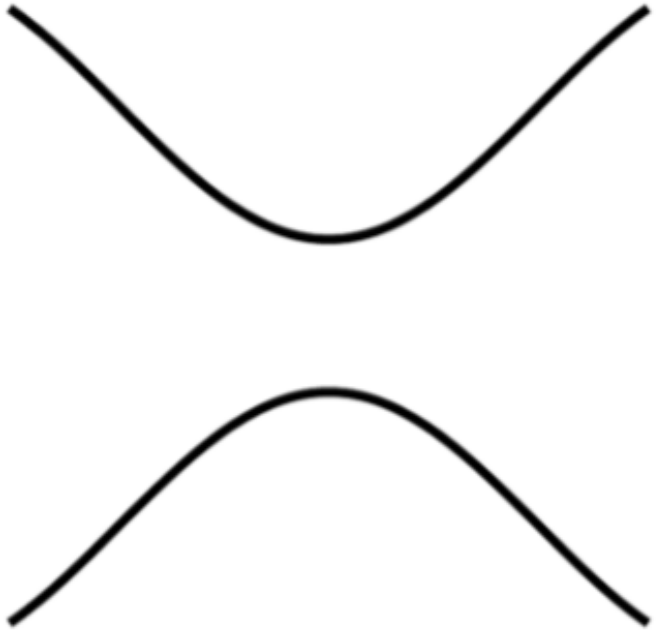


It takes priority over knowledge.

Occlusion complement characteristics

Use your finger and hide.





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Occlusion complement characteristics

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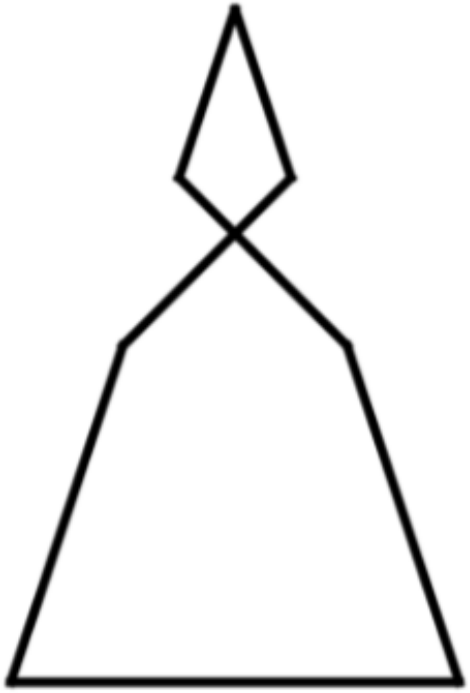
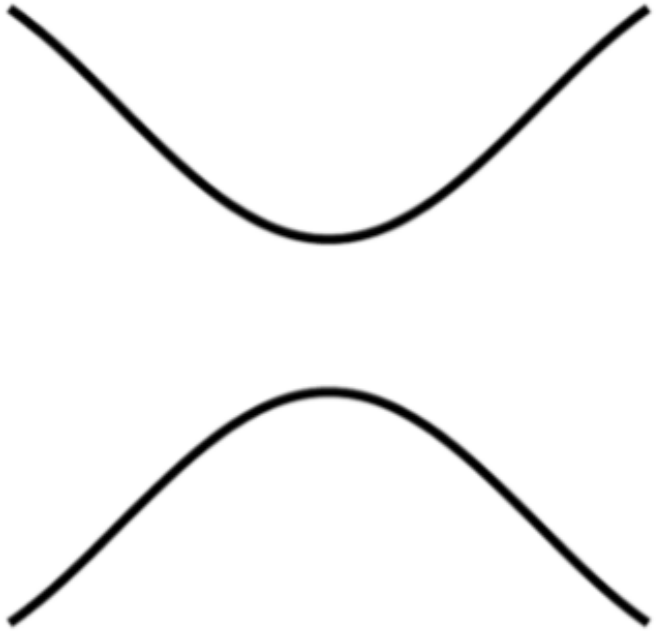


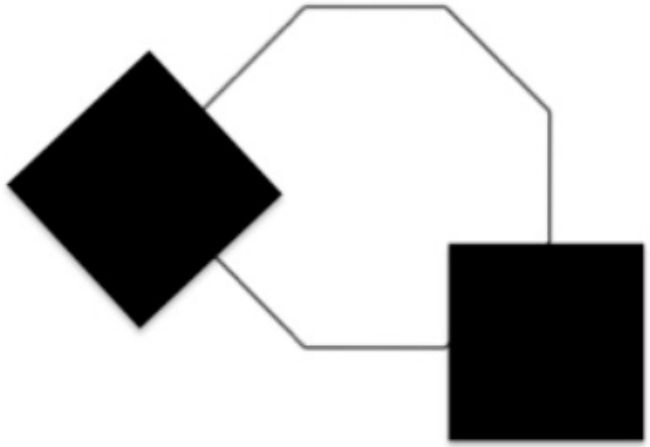


It takes priority over knowledge.

1991

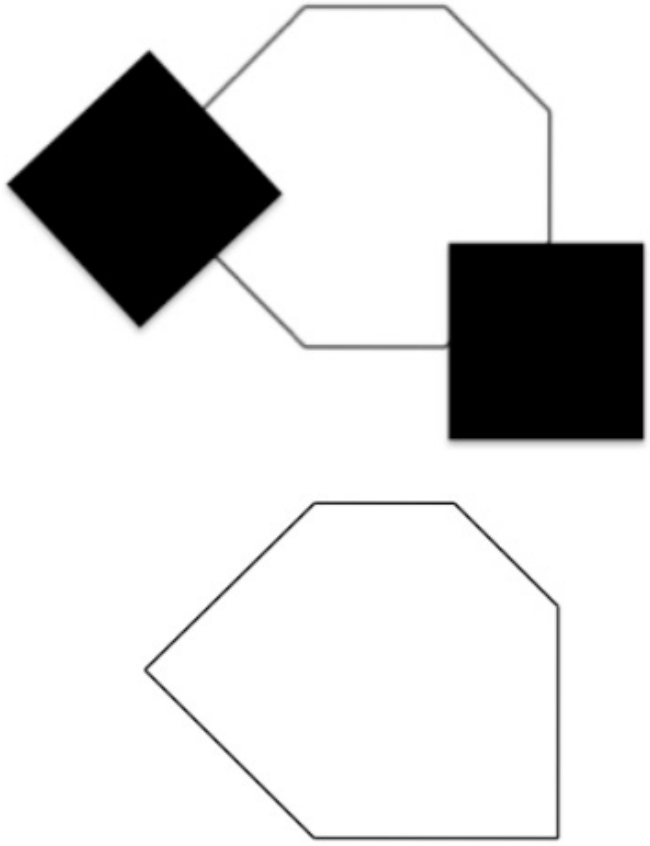
breathing square

Occlusion complement characteristics



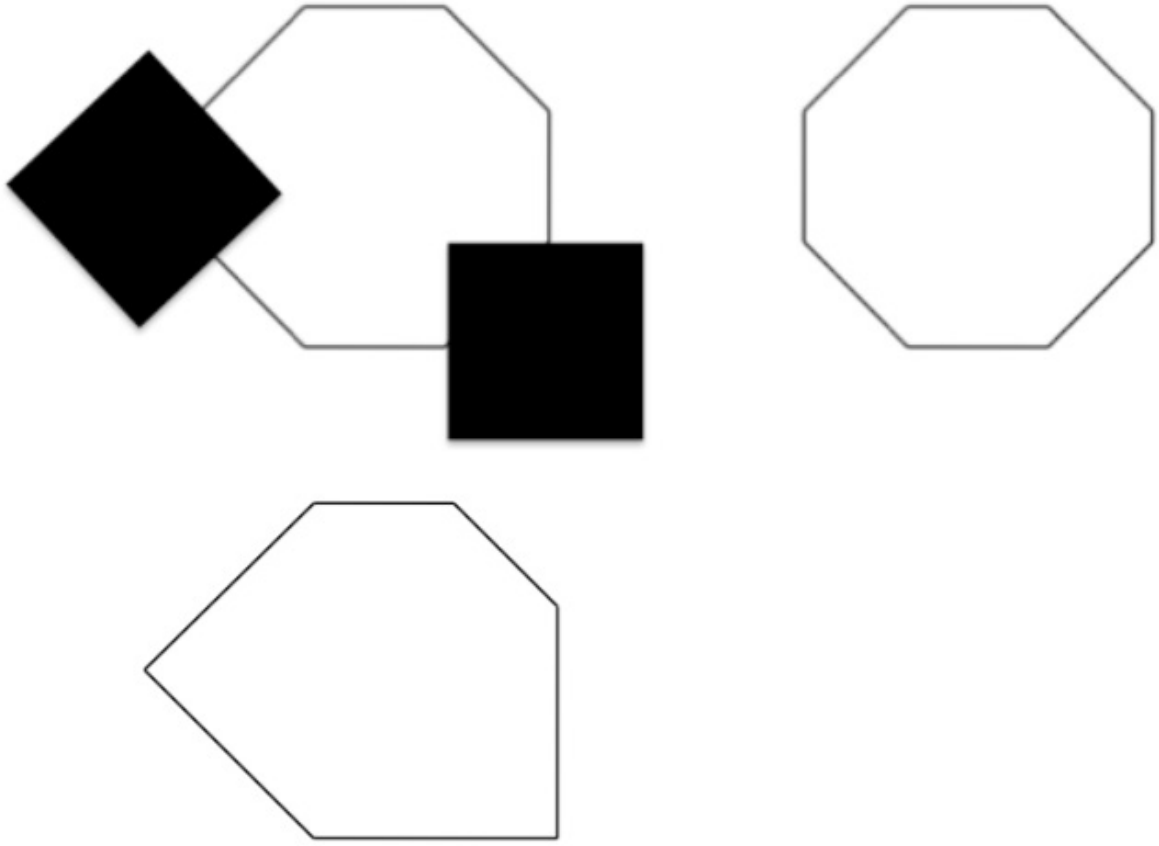
Local connections are important.

Occlusion complement characteristics

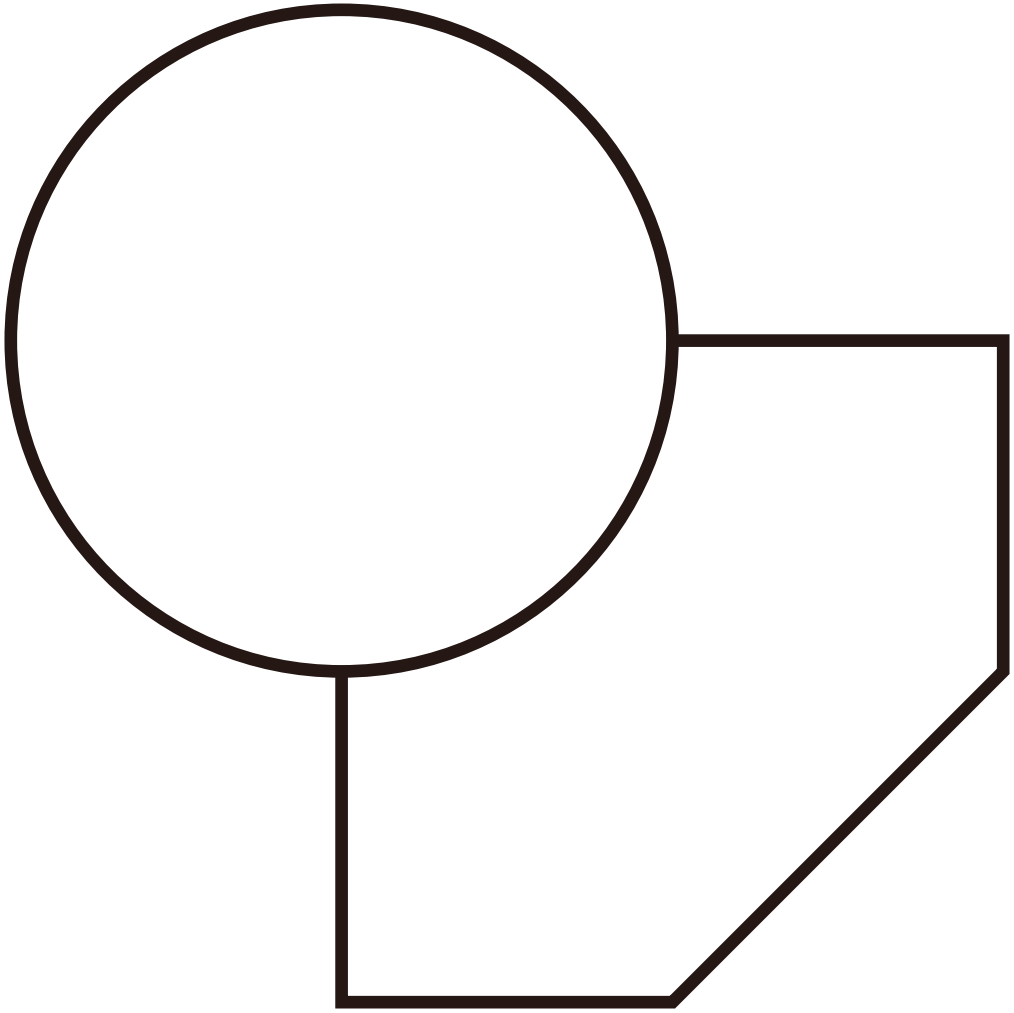


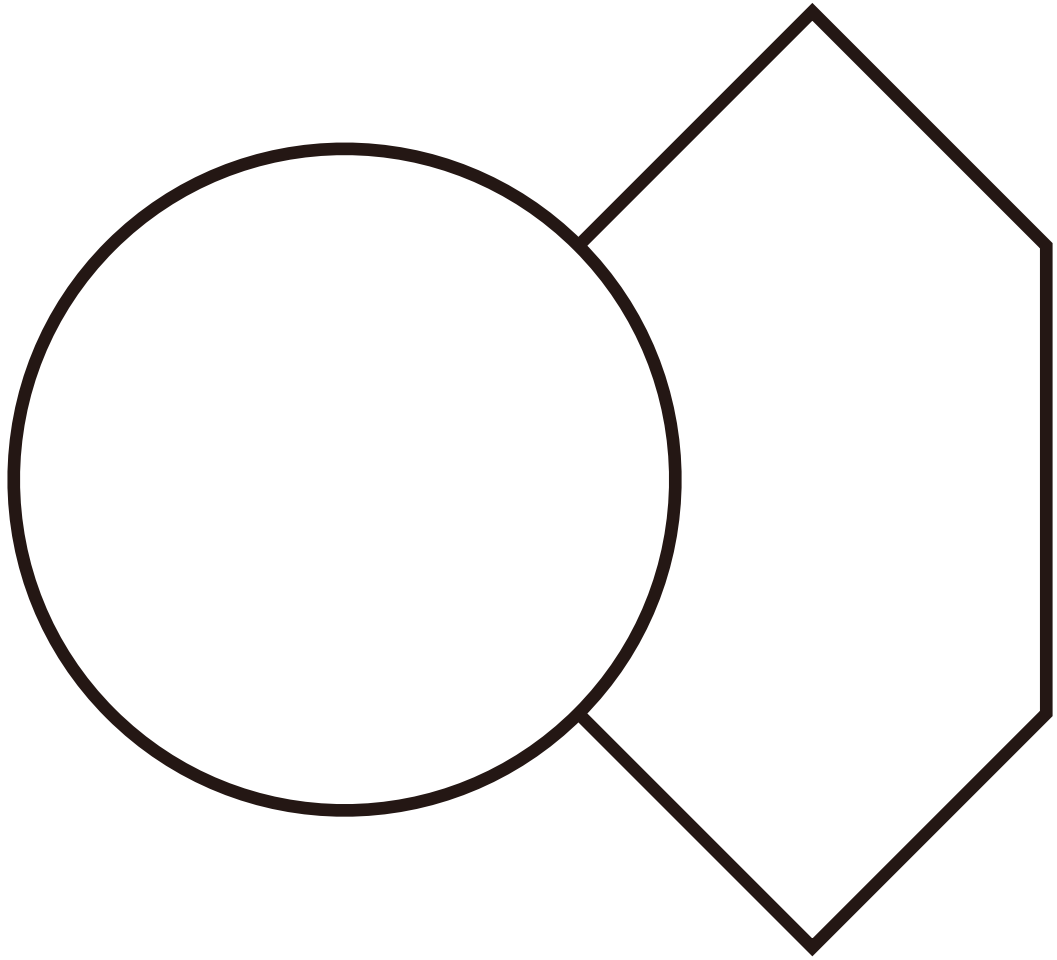
Local connections are important.

Occlusion complement characteristics

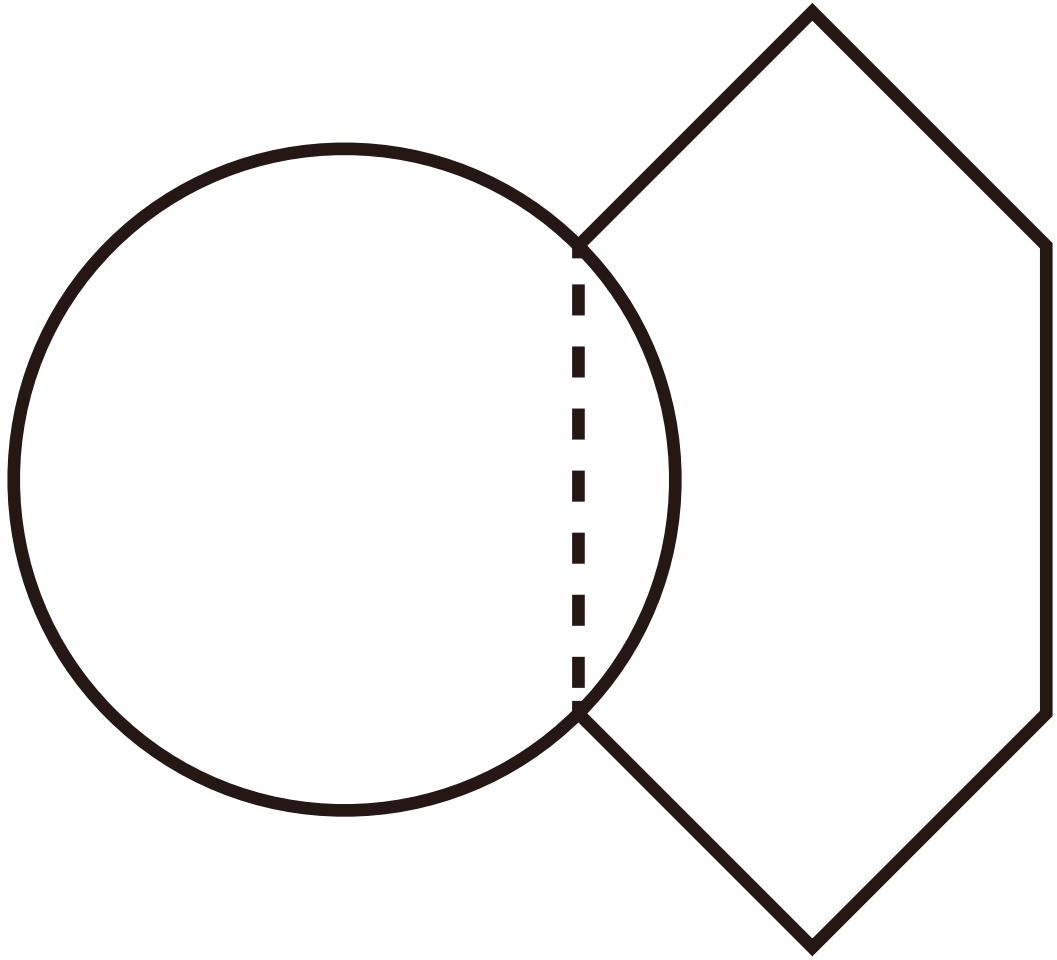


Local connections are important.

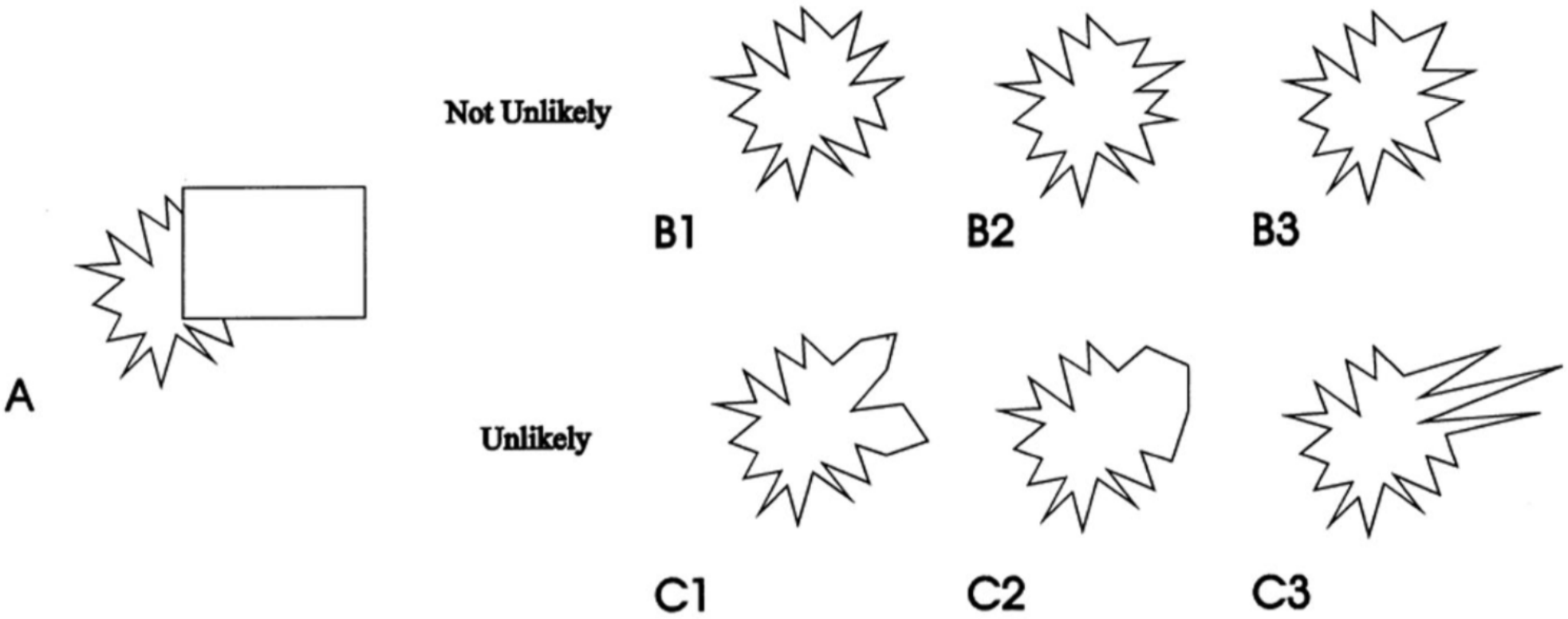




Symmetry was prioritized by the change in orientation.

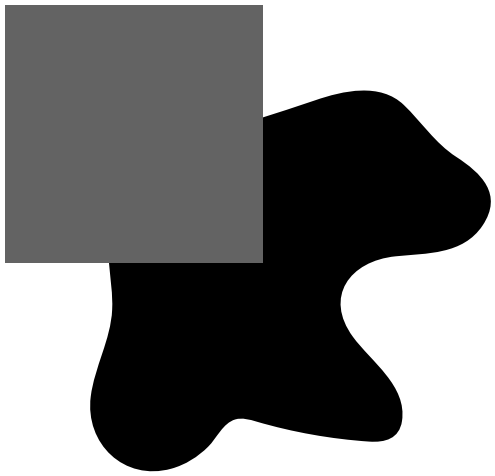


Occlusion complement characteristics

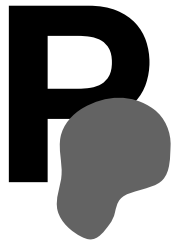


No actual visual representations.

Occlusion complement characteristics

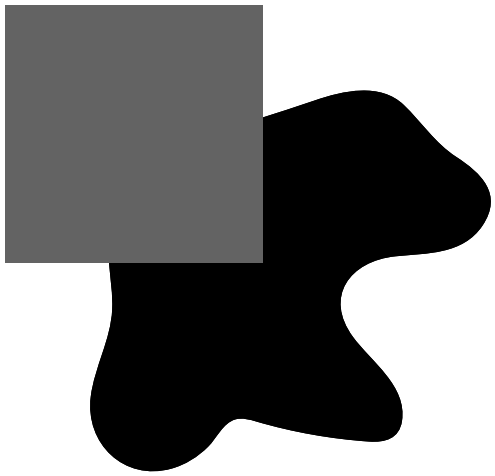


Complementation works even without knowledge, as long as the occlusion relationship is found correctly.



However, the result of completion may change **depending on knowledge**.

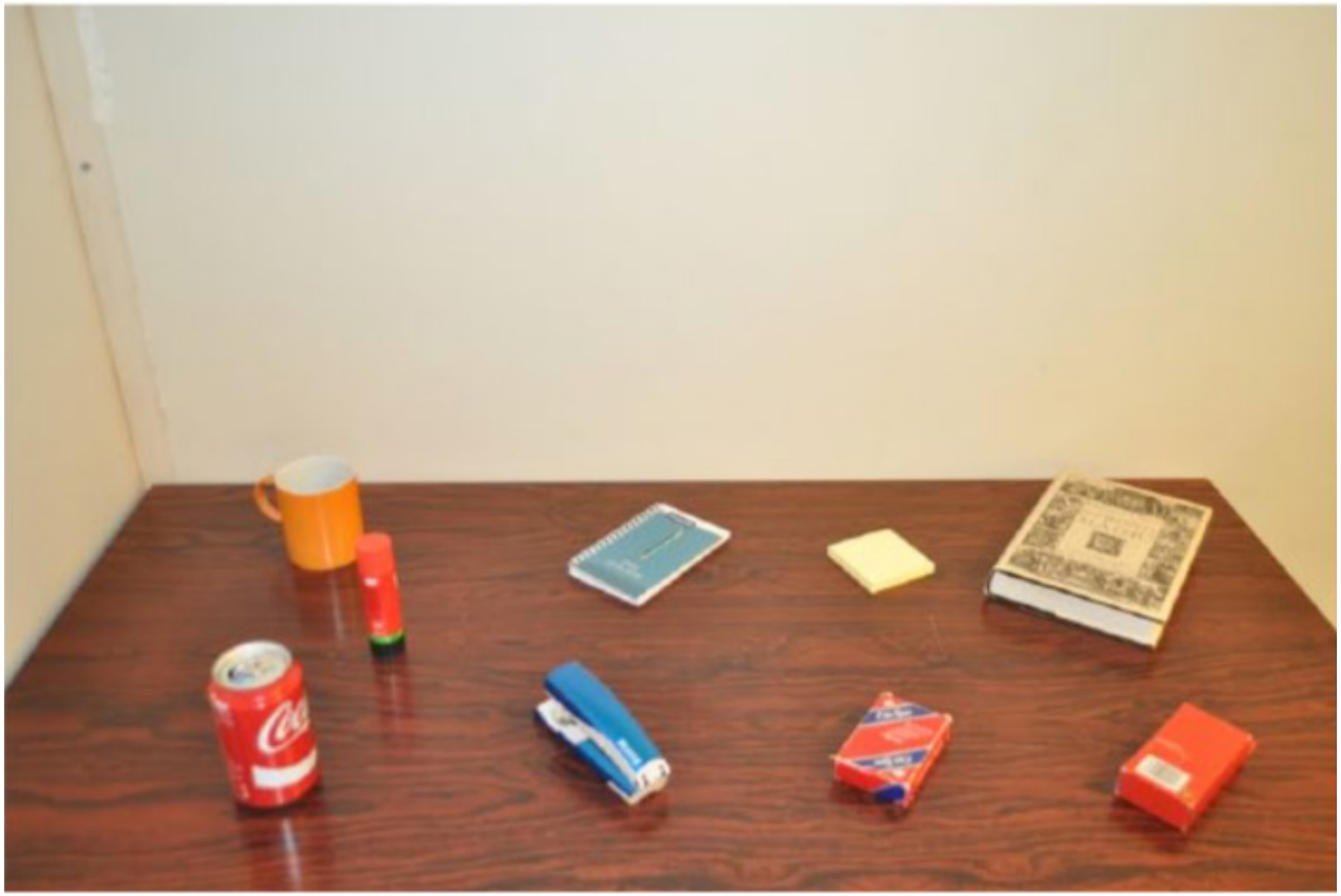
Occlusion complement characteristics



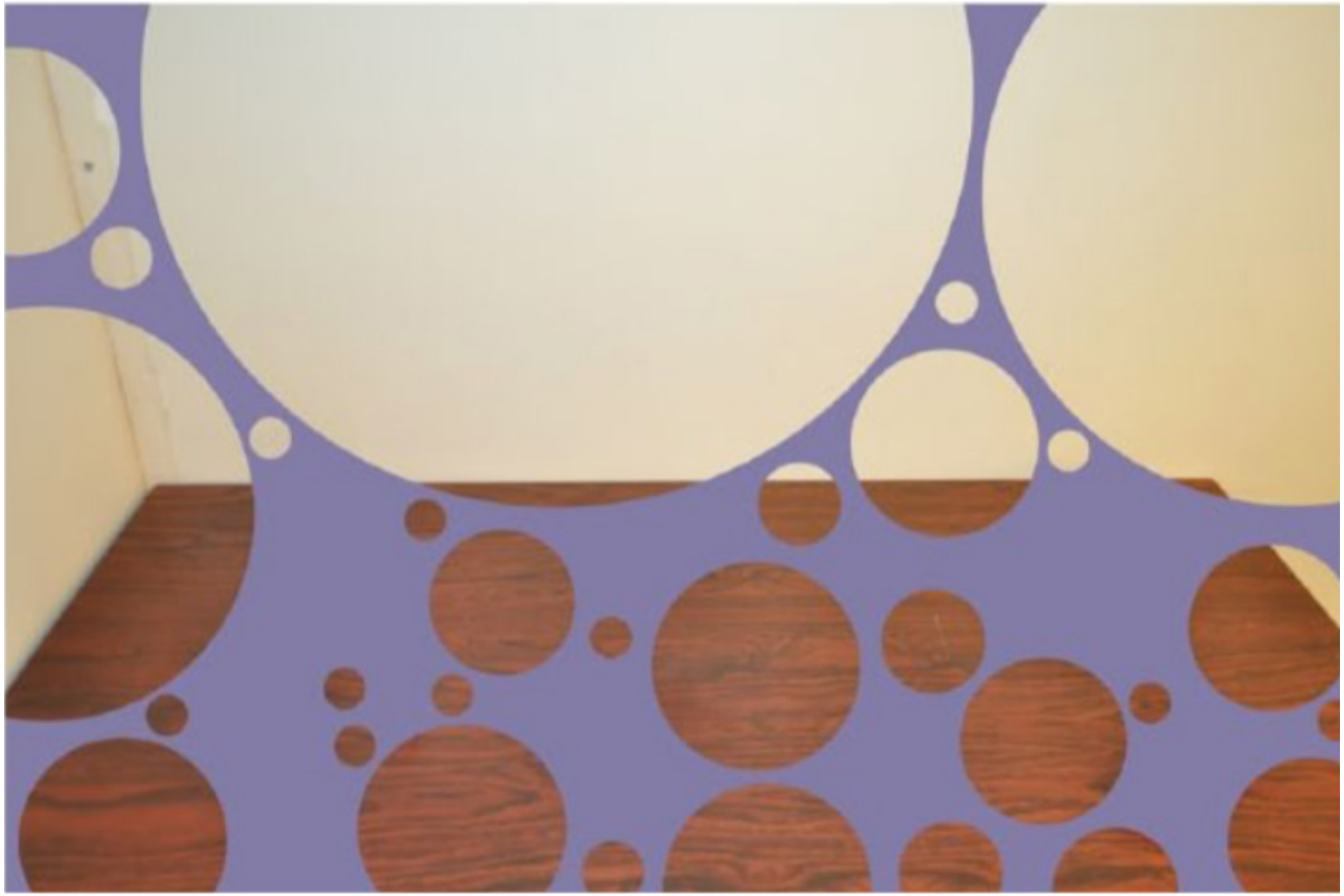
Complementation works even without knowledge, as long as the occlusion relationship is found correctly.

However, the result of completion may change **depending on knowledge**.

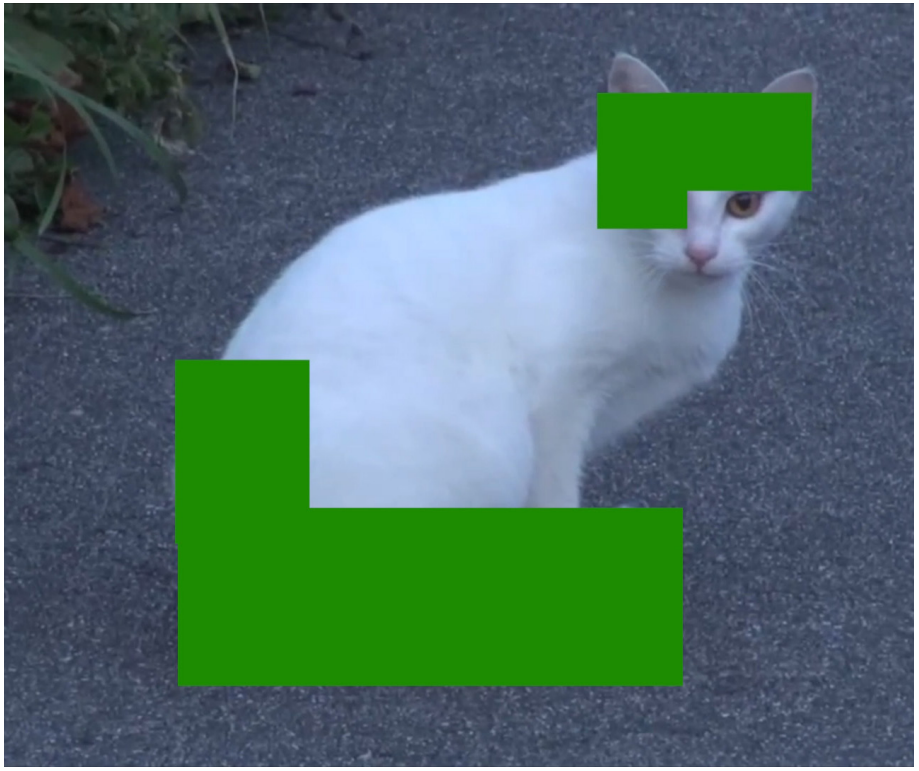
Amodal Absence



Amodal Absence



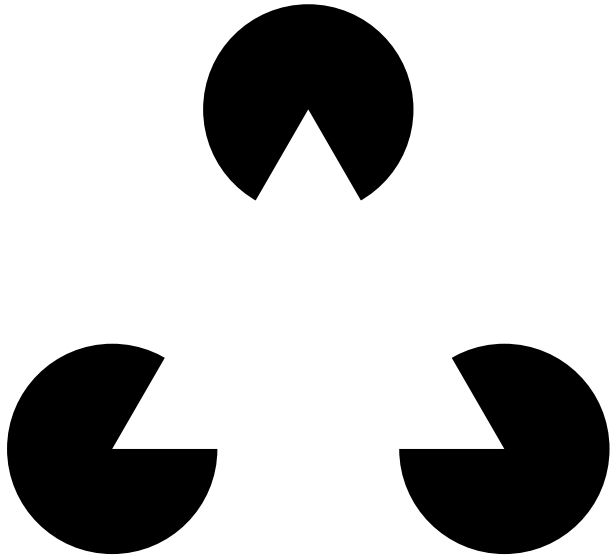
Amodal Absence



modal completion

illusory, (subjective) contour

The **undrawn** contour **appears** to be complemented.

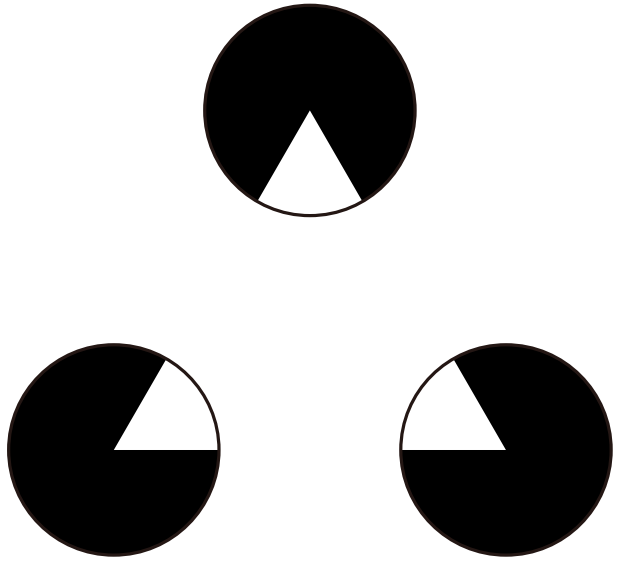


hiding

amodal completion

occlusion complement

The **hidden** is complemented and recognized.
When it is completely hidden, it is recognized as absent.



hidden

modal completion

illusory, (subjective) contour

The **undrawn** contour **appears** to be complemented.

amodal completion

occlusion complement

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Representation is created from a insufficient information.

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The **hidden** is complemented and recognized.
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Representation is created from a insufficient information.

The more information missing, the more the expression will make use of viewers cognitive faculties.

modal completion

illusory, (subjective) contour

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amodal completion

occlusion complement

The **hidden** is complemented and recognized.
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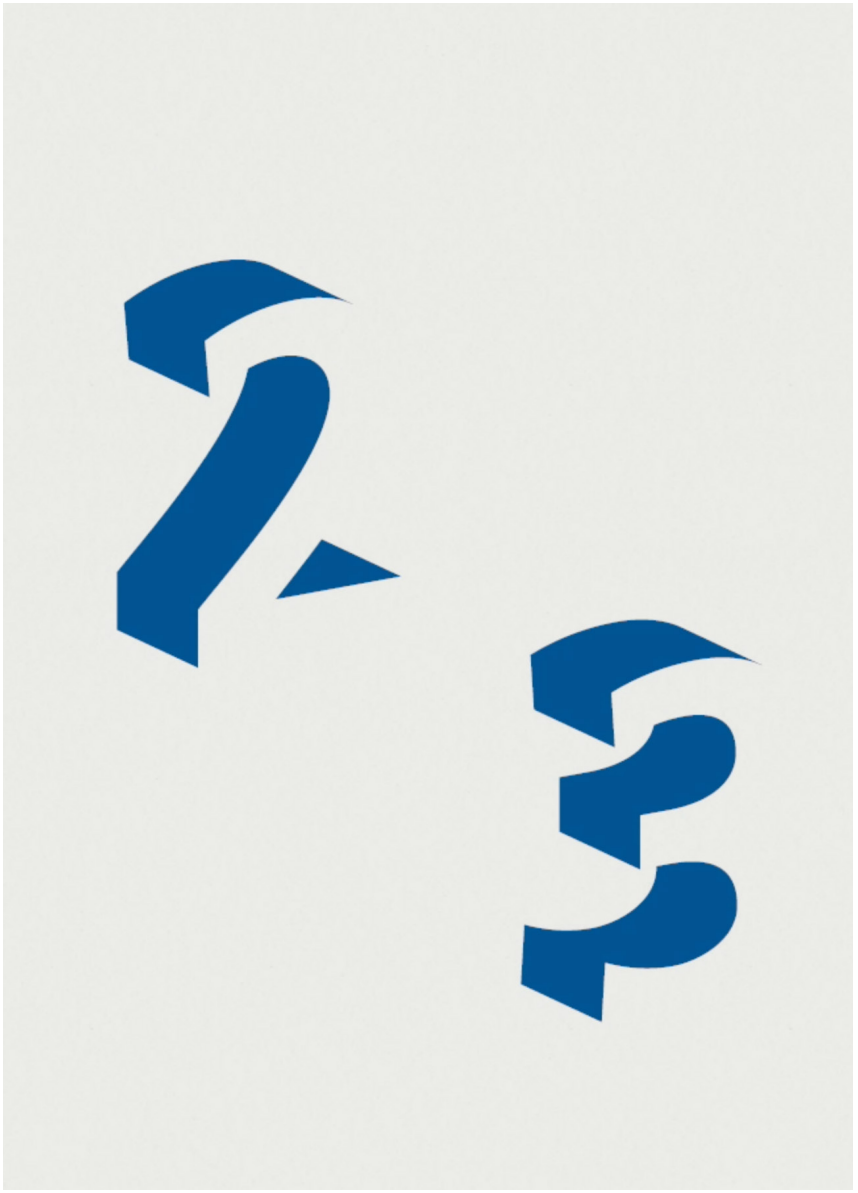
⇩

interesting



大黒大悟／ 2013 ／北海道清里町

5

SALUD

VARIEDADES

PERSONALES

CARPINTERO Experto, **MUEBLES MADECOR**, 20 a 40 años, referencias. Calle 22 Sur No. 24B-09. 2092983.

CARPINTERO Muebles con experiencia Trabajos fórmica y panelería. 3112074578.

CARPINTERO Y ayudante en cocinas integrales. 2356830. 3166950107.

ABIERTO, verdadero masaje, reflexología. Alamos. Señora Gladys. 2277863.

ABRIL Masajes colonterapia, relax, promocion, lunes a domingo. **2106873.**

ABSOLUTA **RELAJACIÓN,** masajes antiestres, Melissa Castillo. **DOMICILIOS.** 3133790671.

AUXILIAR ALMACEN

Inmediato empresa textil requiere, estudios técnicos, con experiencia, joven, disponibilidad horario. Enviar hoja vida, fotografía, Carrera 106 No. 15-25, Bodega 17. **tesoreriafiber@modaconcon.com**

AUXILIAR Bodega, empacador, revisar producción, inventario. **CIPROLAR.** 2700770.

AUXILIAR DE ALMACEN

Joven con experiencia, enviar hoja de vida Carrera 29 No. 68-30.

AUXILIARES Bodega, jovenes, con, sin experiencia, Industria cereales. 2398912.

AUXILIARES **EMPACADORES,** jovenes, sin experiencia, fábrica. Descuamería. 5486831.

BODEGUERO tiqueteador, almacén solicita fábrica, sin experiencia. 6369382.

BODEGUEROS, empacadoras aseo, almacenamiento productos. Mínimo, directamente. 3610265.

BODEGUEROS, empacadores operarios, moto surtidor, empresa logística. 3230827.

DESPACHADOR facturador mercancía, sin experiencia, salario mínimo. 5311453.

EMPACADORAS, auxiliares oficios varios, bodegueros, mixto, laboratorios. 6068773.

CONDUCTORES

Taxis Atos y 7-24 nuevos, con experiencia. Entrego en casa. Calle 71 No. 23-60.

TAXISTA Nocturno con experiencia, sector Venecia, 3125000491, 7158326.

TAXISTA, turno solo, con o sin gas. 3482653.

140

CONFECCIONISTAS Y AFINES

CHAQUETEROS EXPERTOS, OPERARIOS, MAQUINA PLANA, FILETE, CREMALLERA. 4366730.

AHORA masajes ejecutivos. **Avenida suba No. 103B-73.** 5339303.

AHORA, Señorita brinda masajes superelajantes, terapias antiestres. 3103439474.

AMEGA, relax, stress, descanso total, colonterapia. 3473907, 3114960833.

ARTE belleza salud, masajes relajación combos sabado. 2154063.

CENTRO DE MASAJE PROFESIONAL. Para descanso físico mental y estimulación sensorial, recibo personal. **2458435**

CONSIENTE Tu cuerpo y relajate. Solo domicilios. 3133432537, 2272456.

DEJATE CONSENTIR, deliciosos, corporelajantes, antiestres. Animate. 3123191633. Laura.

DISCRETA masajista, atiende caballeros, exclusivo, terapia corporal, solo domicilio. 3152233993.

ESMERALDA Cansado, estresado terapias corporelajantes, 2768754, 3125676889 consultorio.

EXCELENTE relajación cuatro manos, económico. Avenida Boyacá. 4937434.

MASAJES Profesionales, abajo estres, relajantes, sensoriales, tratamientos. 2484916.

MASAJES Relajantes, hidroterapia, sauna, turcos. Tarietas, parqueadero. 2128879.

NUEVA estética excelente relajante cuatro manos, económico. 4984178.

RELAJATE, TURCO, reflexiología, consultorio. Domicilio. 3184390881 7978376. **JAIRO.**

ESLITISTA, profesional, hombre se necesita. Teléfono 4031263, 3112872085.

ESTETICISTA con experiencia en sistemas y recepción que viva en Suba. 6822007, 6853740.

OTROS TECNICOS

ASISTENTES De oficina, requiere empresa líder en manufactura, excelentes ingresos. 2431819, 4828410 codigo 4025.

AUXILIAR COMERCIO EXTERIOR, requiere empresa textil, con experiencia 1 año, exportaciones, importaciones, manejo facturación y sistemas, joven, enviar hoja de vida, fotografía. Carrera 106 No 15-25. Bodega 17, Fiberteo.

AUXILIARES Mantenimiento industrial, bachilleres industriales, metalmecanica, ayudantes. 3182343.

CONDUCTOR Para taxi, turno largo, zona norte. **CARRO ESTRENAR.** 6263409, 3156200306.

CONDUCTOR para Taxi, viva Noroccidente, experiencia deposito. 3133261995.

CONDUCTORA Señorita, bien presentada, requiere lavandería. 6130896, 2635554.

CONDUCTORES Atos 2006, turno largo, fiador, 3132638171, 3123503432.

CONDUCTORES auxiliares camioneta, requiere transportadora, $850.000, urgente. 2827790.

CONDUCTORES Npr turbo, camotera, ayudantes camionetas, 2438035, 3112542247.

CONDUCTORES Quinta categoria mínimo, urgente. Calle 152 No. 40-59. 6748035

CONDUCTORES. Requiere empresa. No traer Hoja Vida. Carrera 73 No. 75A-89.

CONDUCTORES taxi Atos, diurnos, nocturnos, radioteléfono, experiencia. 3482653.

CONDUCTORES TAXI, NOCTURNOS, con experiencia. camos nuevos (Hyundai Atos). Calle 9 No. 40-50.

TAXISTA turno solo. con o sin gas. 3482653.

OPERADOR DE TORRE GRUA

EXPERIENCIA, presentarse hoja de vida. Avenida Calle 17 No 126-12.

OPERARIO inyección experiencia, hoja de vida Carrera 124A No. 18A-67. 4298674.

OPERARIO oficios varios, fumigaciones, con moto. 8848301, 8948337.

ABIERTO, verdadero masaje, reflexología. Alamos. Señora Gladys. 2277863.

ABRIL Masajes colonterapia, relax, promocion, lunes a domingo. **2318673.**

ABSOLUTA RELAJACIÓN, masajes antiestres, Melissa Castillo. **DOMICILIOS.** 3133790671.

ABURRIDO, Cansado, estresado, concientete, variados masajes, $15.000. 2127256.

ABURRIDO?, masaje desestresante gran variedad. 3127153, domicilios. 2177494.

ACABE Stress, agradable masaje, completo descanso, económico. 3484689.

AGUEDA Masajes exclusivo sa-

AHORA Kennedy, señoras, ofrecen masajes corporelajantes. 4542401, 3002752530.

AHORA Señora, ofrece masajes corporelajantes, domicilios. 4802779, 3153892075.

ALQUILO Centro de estetica, por horas. 6241765, 3132102866.

BAÑOS Turkos portátiles, piscinas, calderas, jacuzzis. 4075071, 3164342337.

BIOMASAJE, ienergético!, relajación, shiatsu, reflexología. 3374387, 3124242022. **JAIRO.**

BRONZELARTE. Productos Franceses 100% naturales, bronceadores y adelgazantes, mayor y detal domicilios. 6095233, 6145009. **www.bronzelarte.ya.st**

Cura vitiligo, herpes, acne, gangrena, quemaduras, linfomas leusemia, cancer, sida, soriasis quistes y calculos, 8931597, 3166715667. **www.dulcamare.com**

ECONOMICOS Masajes antiestres, relajamiento físico, damas, caballeros. 4348773, 3005536595. Leonardo.

ELEVE gluteos reduzca abdomen, talla, faja yeso. 6304130.

ELIMINE Lineas de expresión, manchas, poros dilatados con puntas de diamante. Levantamiento de gluteos sin cirugia. **MAQUILLAJE PERMANENTE** con técnica americana. 3132421339, 2744904.

GRAN Oportunidad, tratamientos faciales, corporales, terá-

AHORA Kennedy, señoras, ofrecen masajes corporelajantes. 4542401, 3002752530.

AHORA Señora, ofrece masajes corporelajantes, domicilios. 4802779, 3153892075.

ALQUILO Centro de estetica, por horas. 6241765, 3132102866.

BAÑOS Turkos portátiles, piscinas, calderas, jacuzzis. 4075071, 3164342337.

BIOMASAJE, ienergético!, relajación, shiatsu, reflexología. 3374387, 3124242022. **JAIRO.**

BRONZELARTE. Productos Franceses 100% naturales, bronceadores y adelgazantes, mayor y detal domicilios. 6095233, 6145009. **www.bronzelarte.ya.st**

344

SERVICIOS MEDICOS Y ODONTOLOGICOS

¿MIGRAÑA?

GASTRITIS, sobrepeso, soluciones médicas especializadas, acupuntura china. 4412553.

ABAJO DISFUNCIONES, Mejore desempeño sexual, nueva Técnica **TANTRA.** Martha Meija. **SEXÓLOGA.** 4806669, 3102094117.

ABAJO Frigidez, retardantes, bombas $49.000, vibradores. 5001020, 6083901.

CARPINTEROS, Con herramientas, con experiencia, favor comunicarse. Diagonal 318 Bis No. 24B-74, 2024827, 7207255

CARPINTEROS, Ebanistas, por contrato. 3002022423, 6301205. Metrogolfs.

dairoemilios60@terra.com.co

CARPINTEROS MAQUINISTAS, AYUDANTES ADELANTADOS. Calle 161 No. 31-44. 4803270, 3156104056.

CARPINTEROS y Pintores, experiencia mínima 2 años, fabricación muebles, exhibidores y estan, pintor experiencia duco, anexar referencias laborales. Enviar hoja de vida. Carrera 44 No. 71A-42. 6206486.

EBANISTA, Con experiencia,

TEJEDORES

Con experiencia en máquinas computarizadas rectilíneas y fileteadora 2315917.

TEJEDORES máquinas rectilíneas Universal y stoll, rematadores y control de calidad. Calle 21A No. 69B-93. 4123523.

TEJEDORES telares planos, hoja de vida. Tranversal 6 No.14-36 Cauca. 7197008.

395

DIGITADORES

DIGITADOR extractos bancarios, sin experiencia, salario mínimo. 5311453.

DIGITADOR, mixto, extracto bancario, oficinista, sin experiencia. 6060558.

DIGITADORA, Necesitamos señorita bachiller, con experiencia, Directamente 7802345.

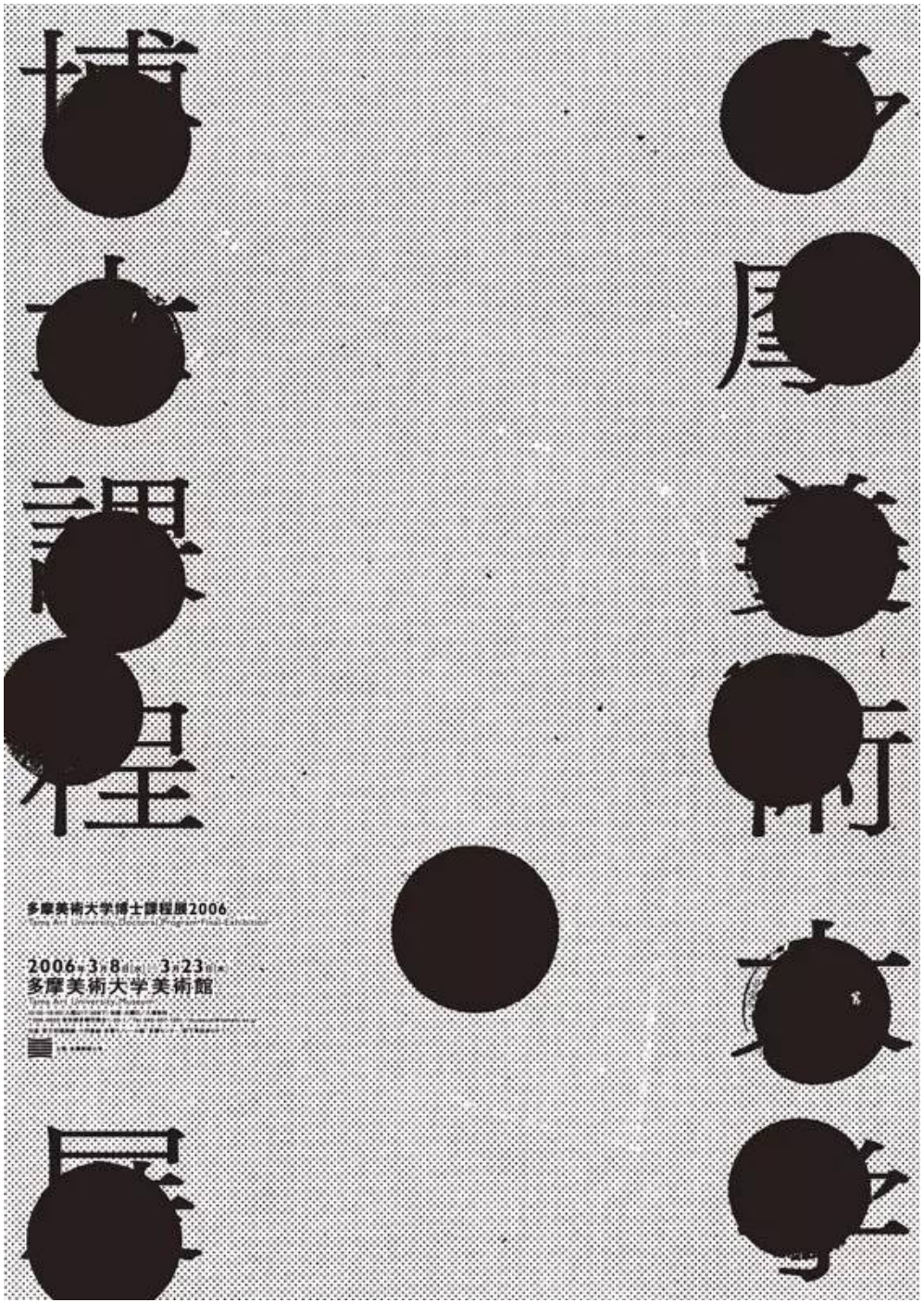
DIGITADORA

Video chat, ingles básico, vinculación inmediata. 2216914, 3208547780.

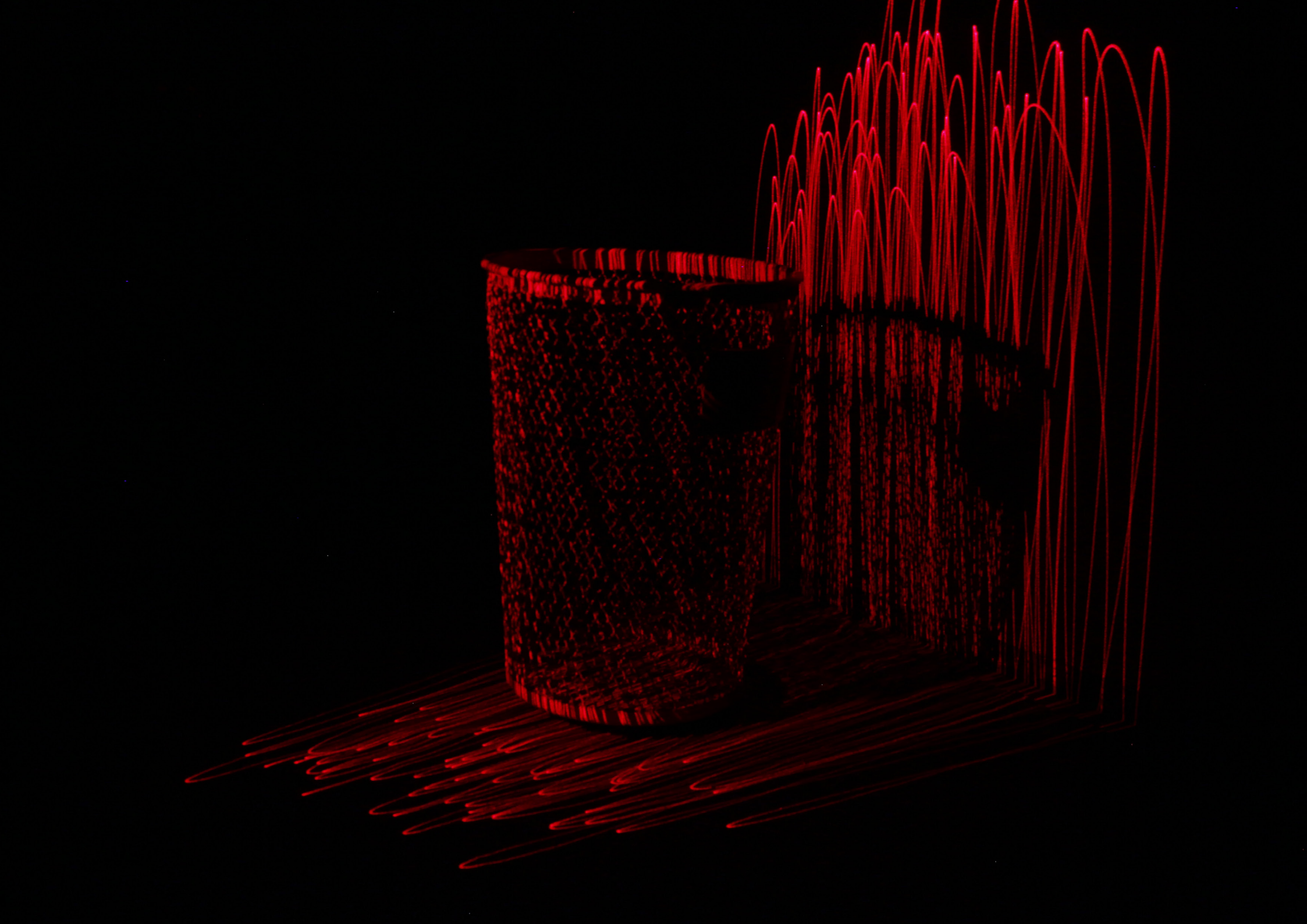
DIGITADORAS, Anotadoras, medio tiempo, completo $350.000, $120.000. 2824477.

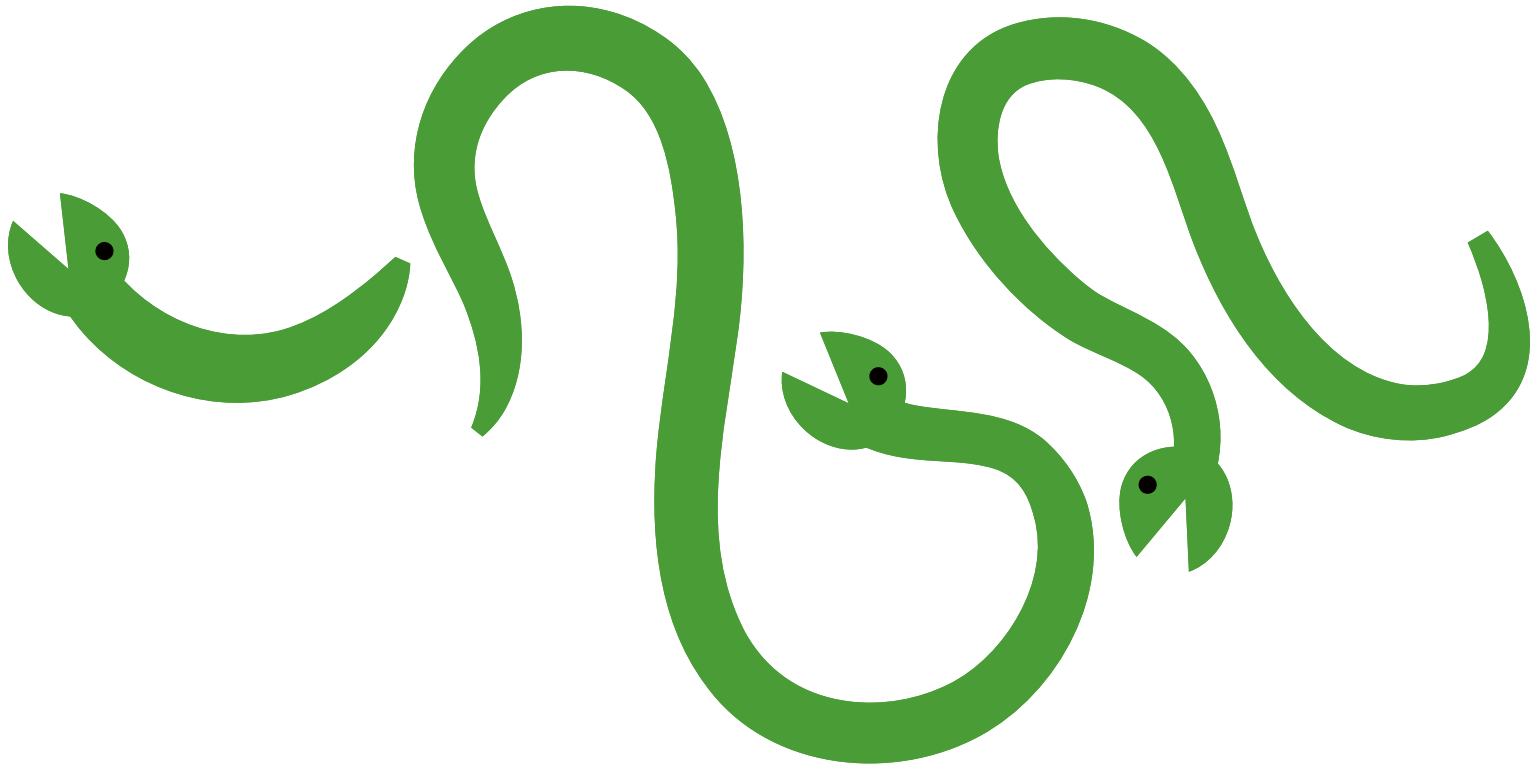
DIGITADORAS call center Internacional, solicita personal femenino entre 18 y 28 años, con manejo medio de ingles, contratos temporales o a término indefinido, entrevistas únicamente sabado 16 de septiembre Hotel Andes plaza, Avenida 15 No 100-11 Chico norte, inscripciones horas oficina. 2696060, 3440994.

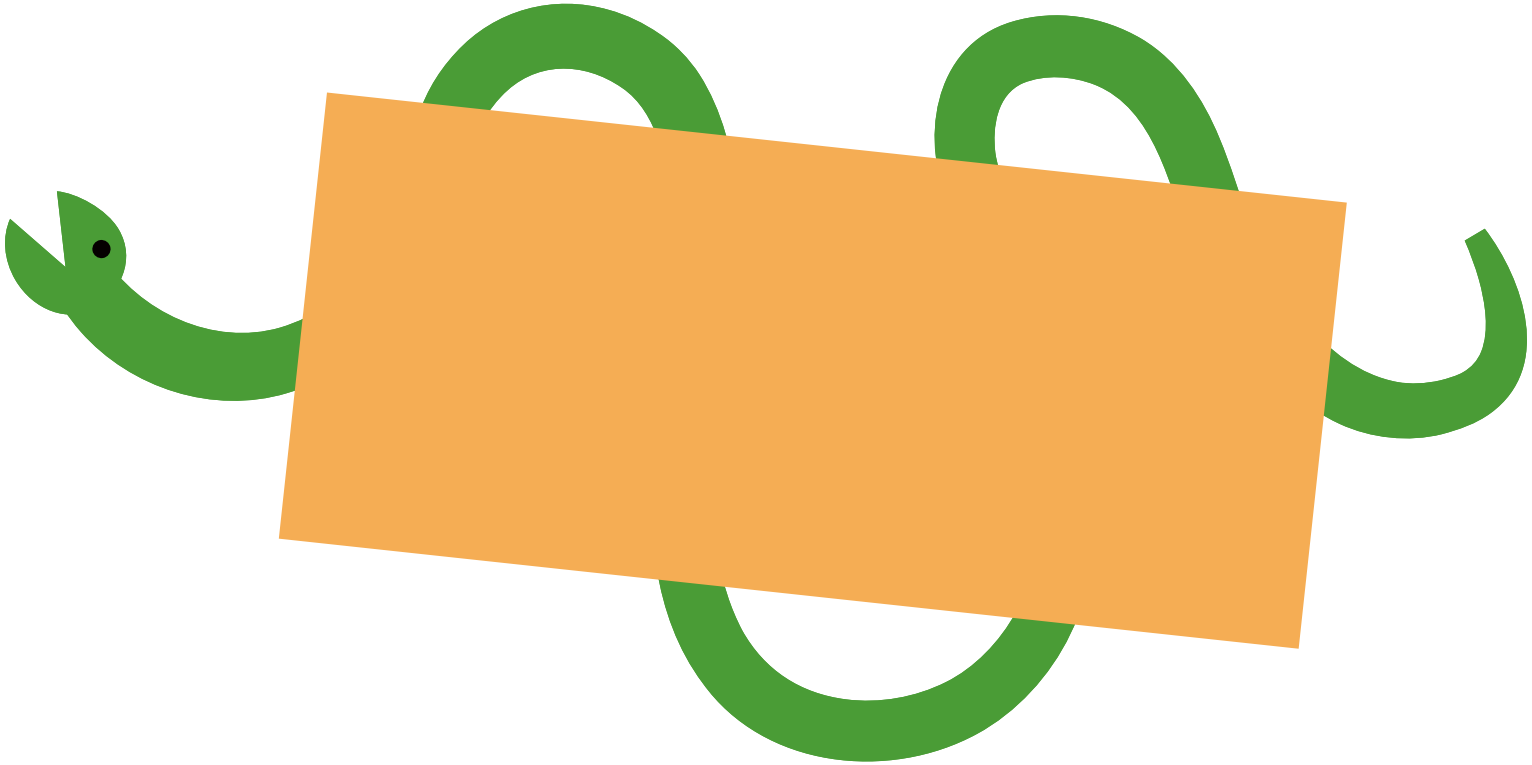
DIGITADORAS



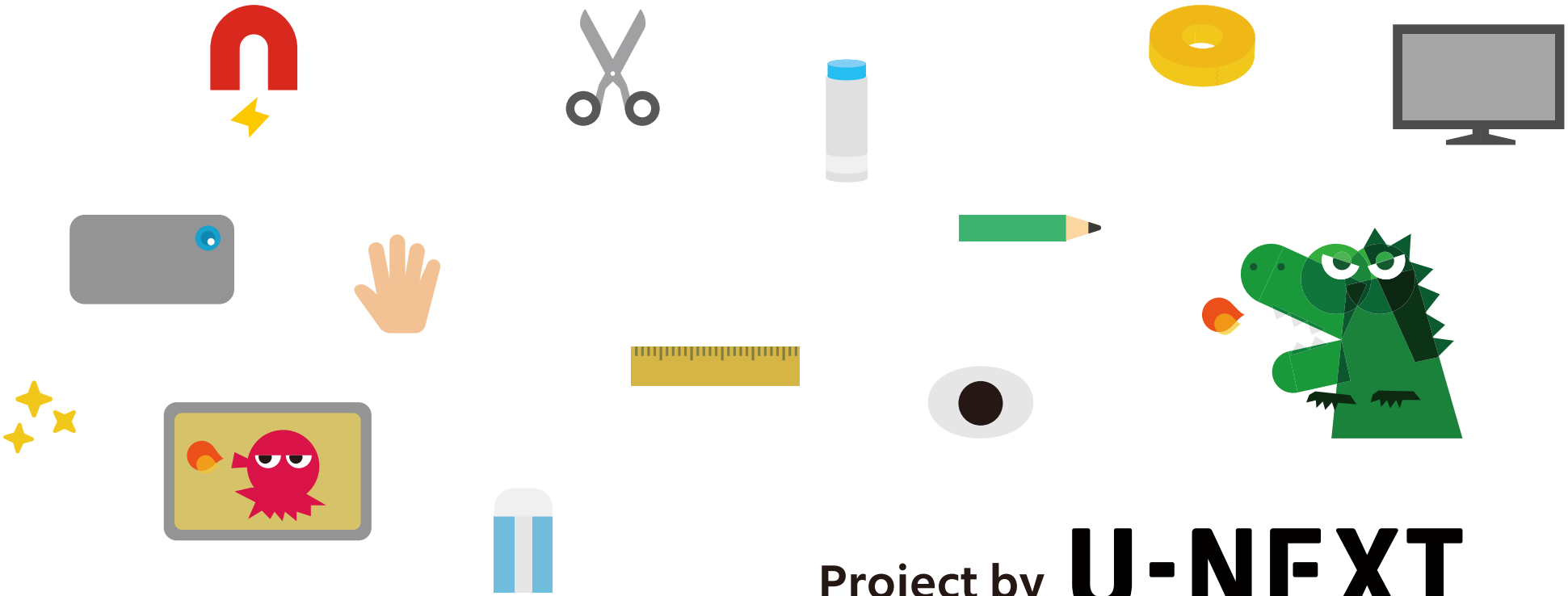
佐藤晃一 / 2006





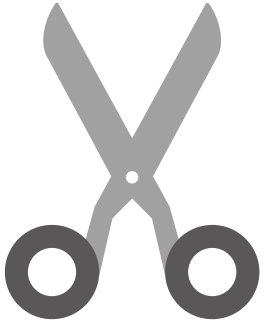


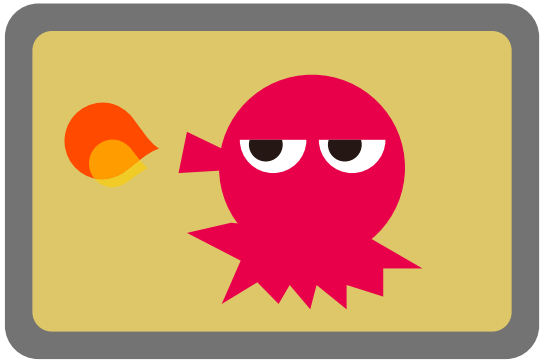
うご工作

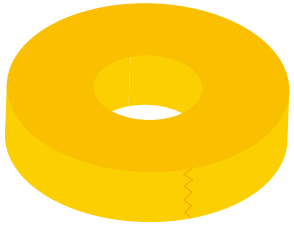


Project by U-NEXT

アニ工作







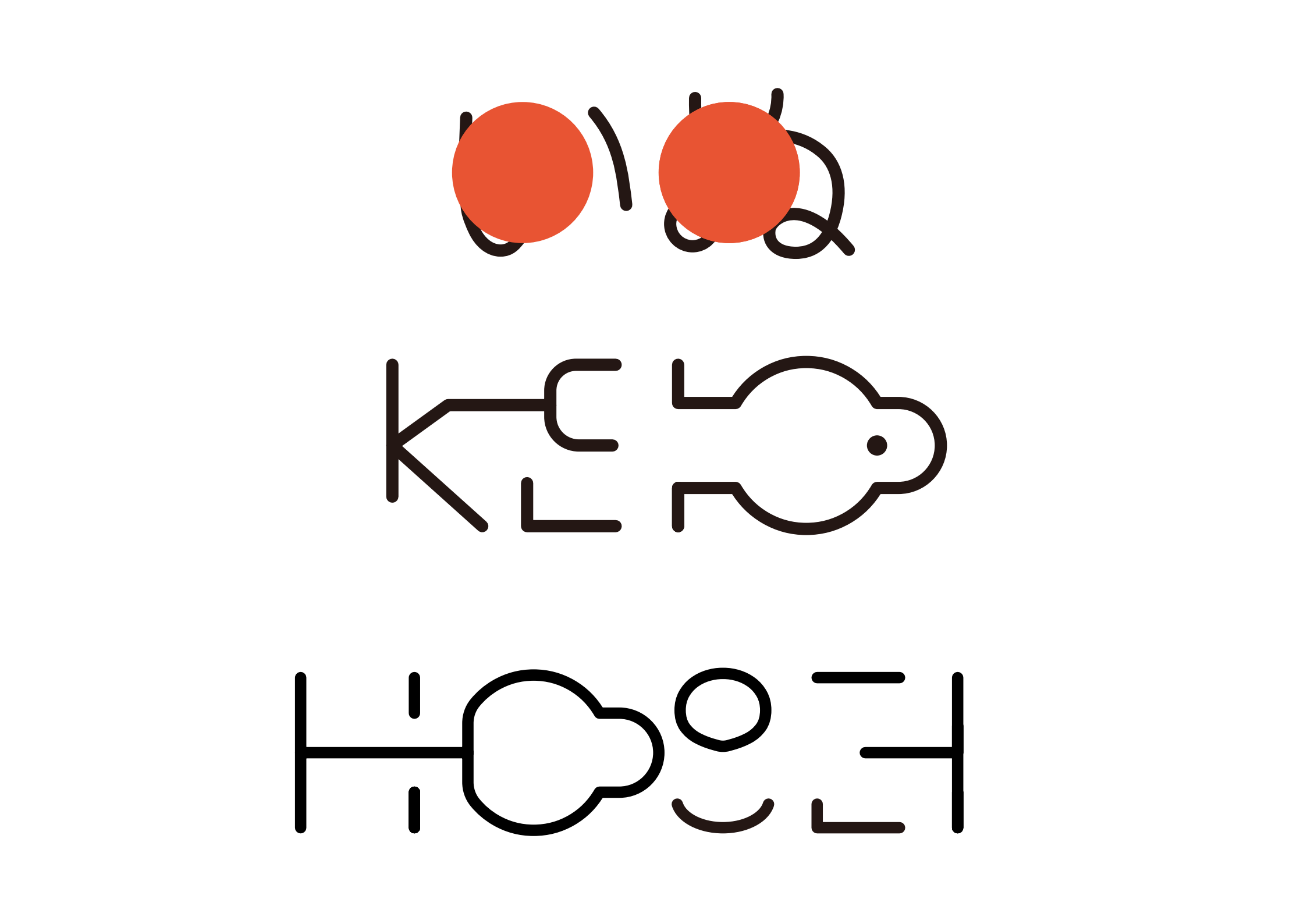
assignment Amodal completion typography

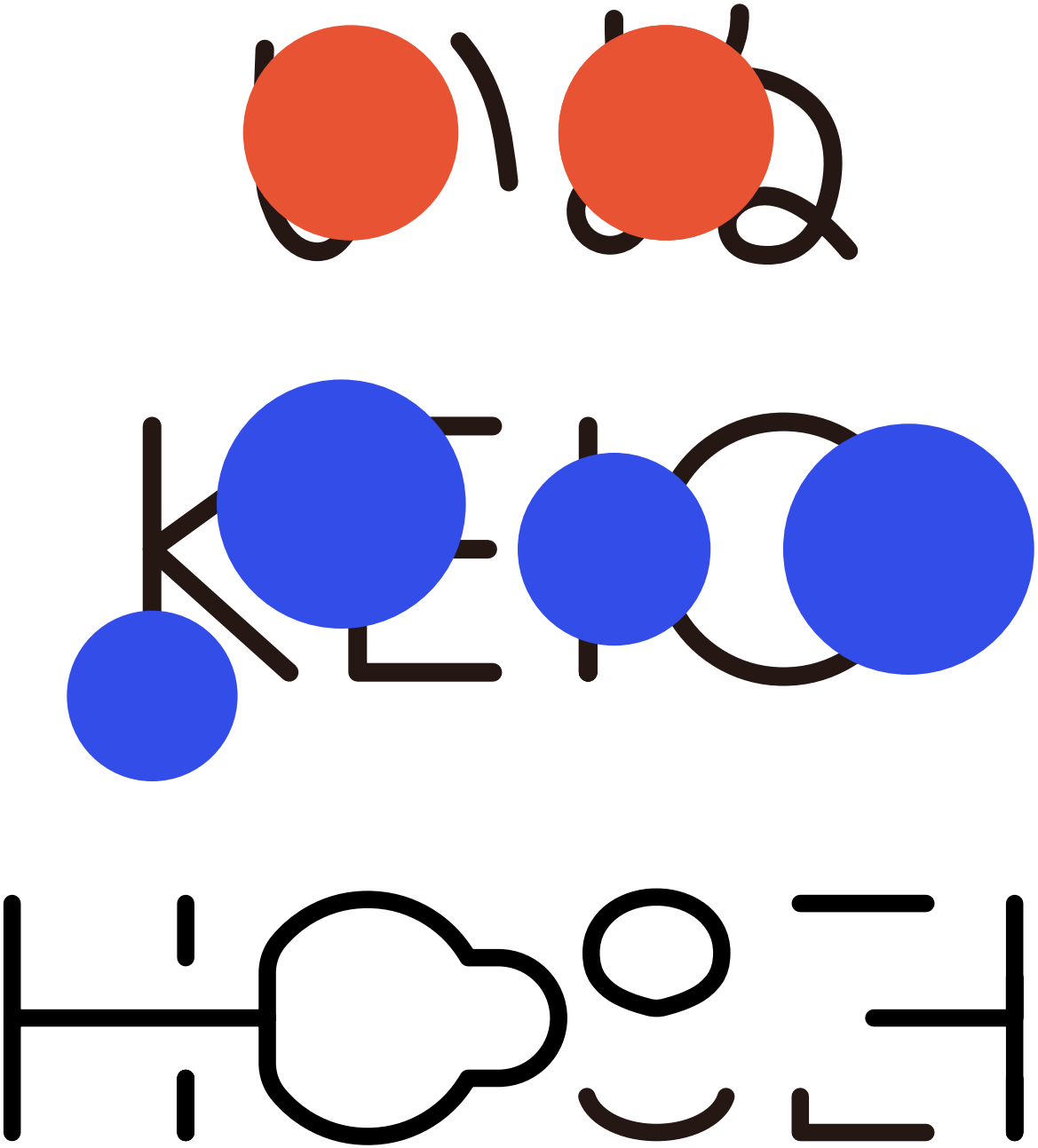
Choose a word and **design a logo** which can be readable when it is hidden by something.

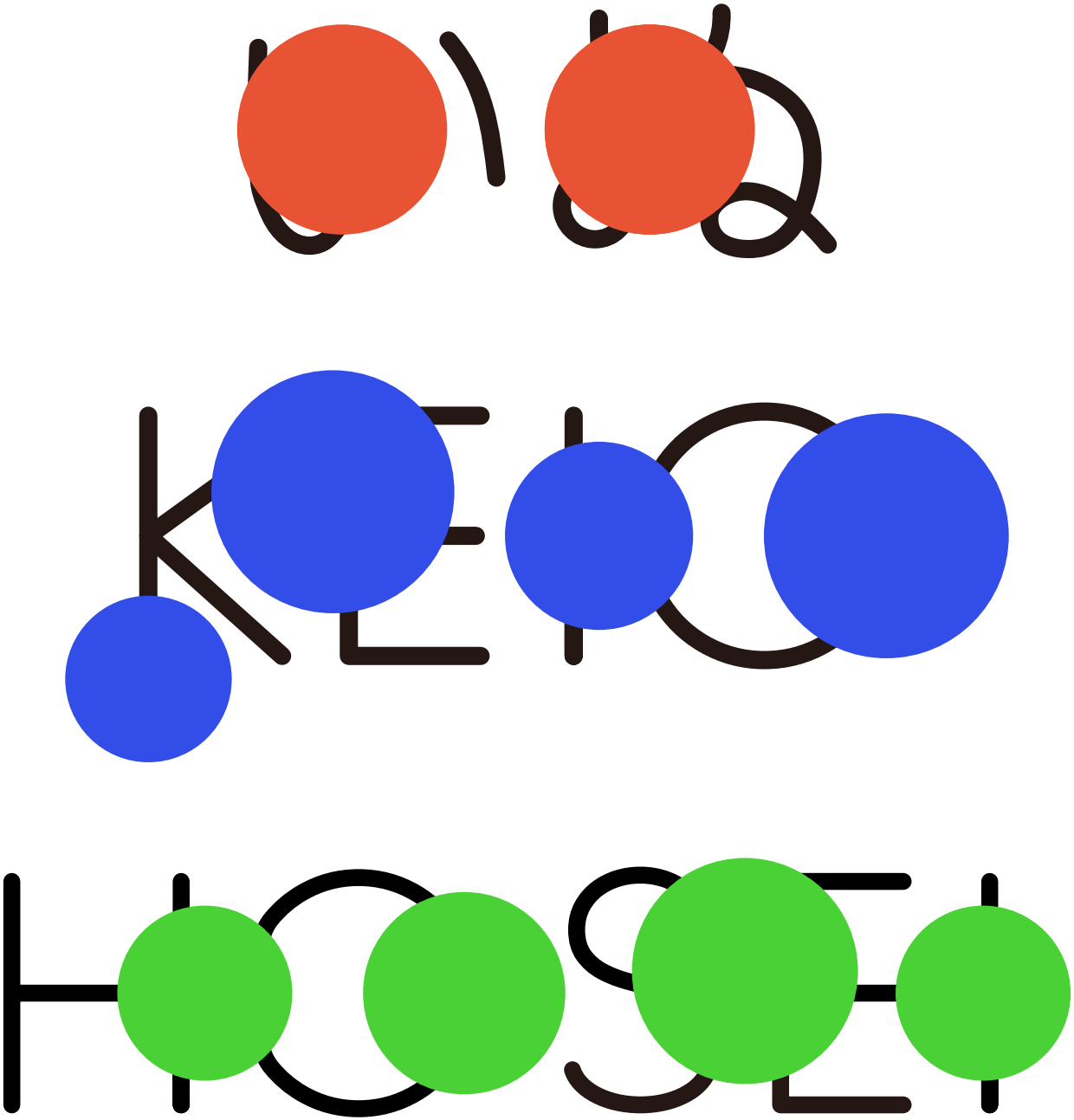
point

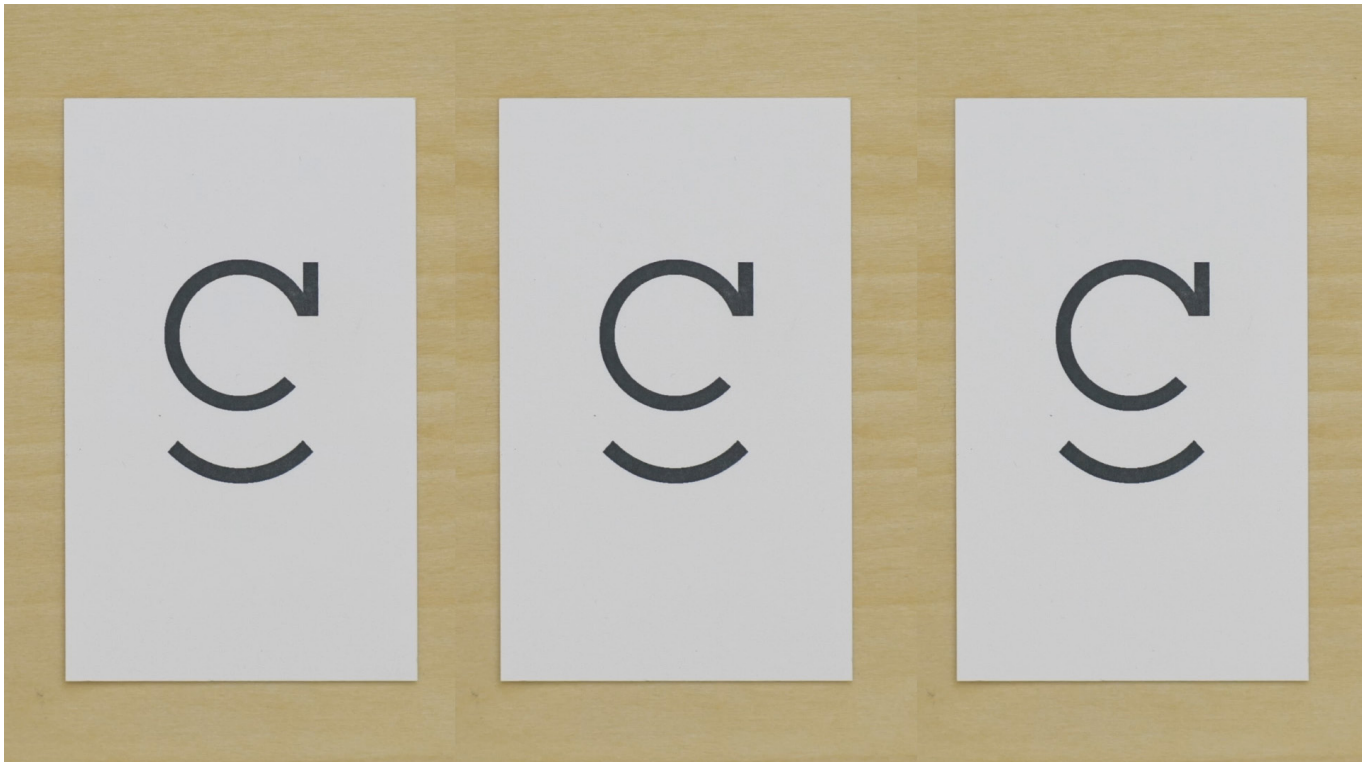
- Design both the **word** and the **hiding object**.
- Submit 2 images in digital data.
  The unreadable non hidden logo, and the readable hidden logo.
- Use tools you can use, digital, analog.

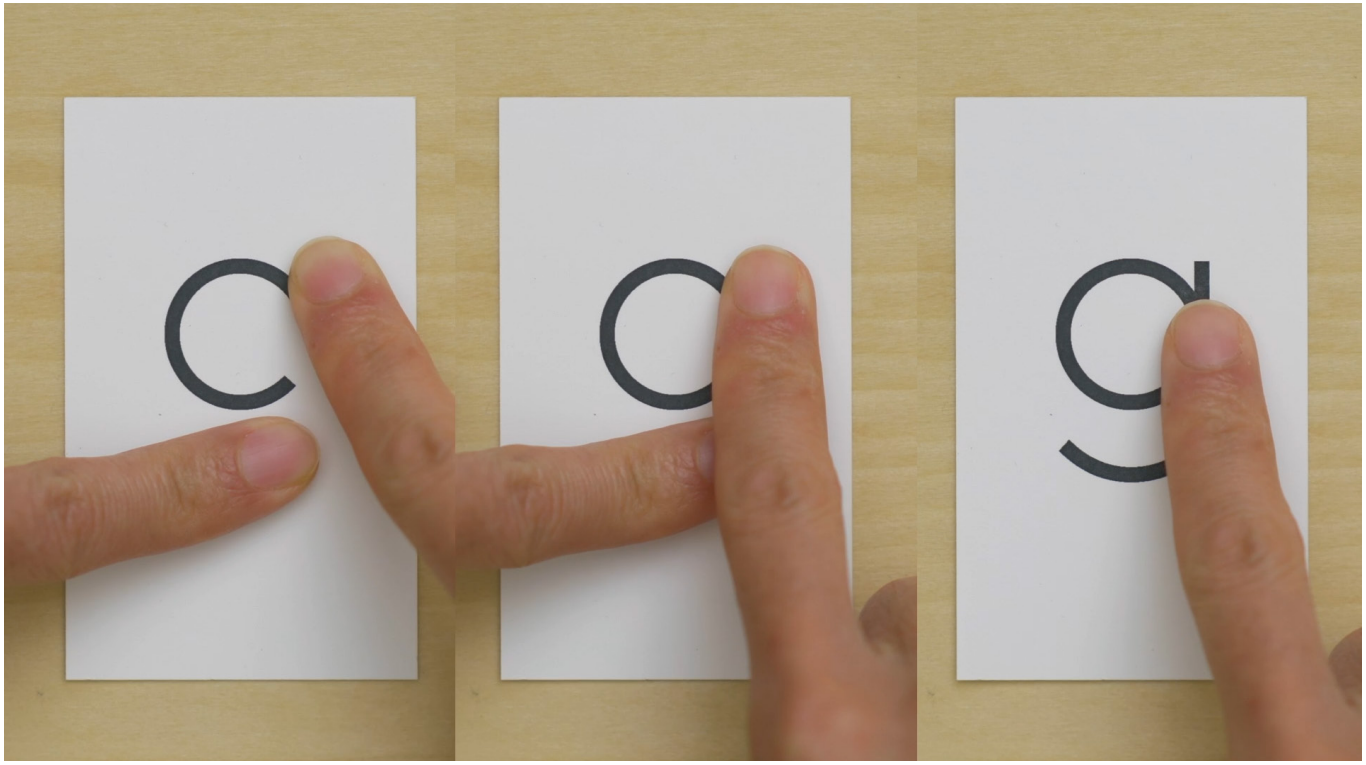
6/5 review deadline 6/3 noon.

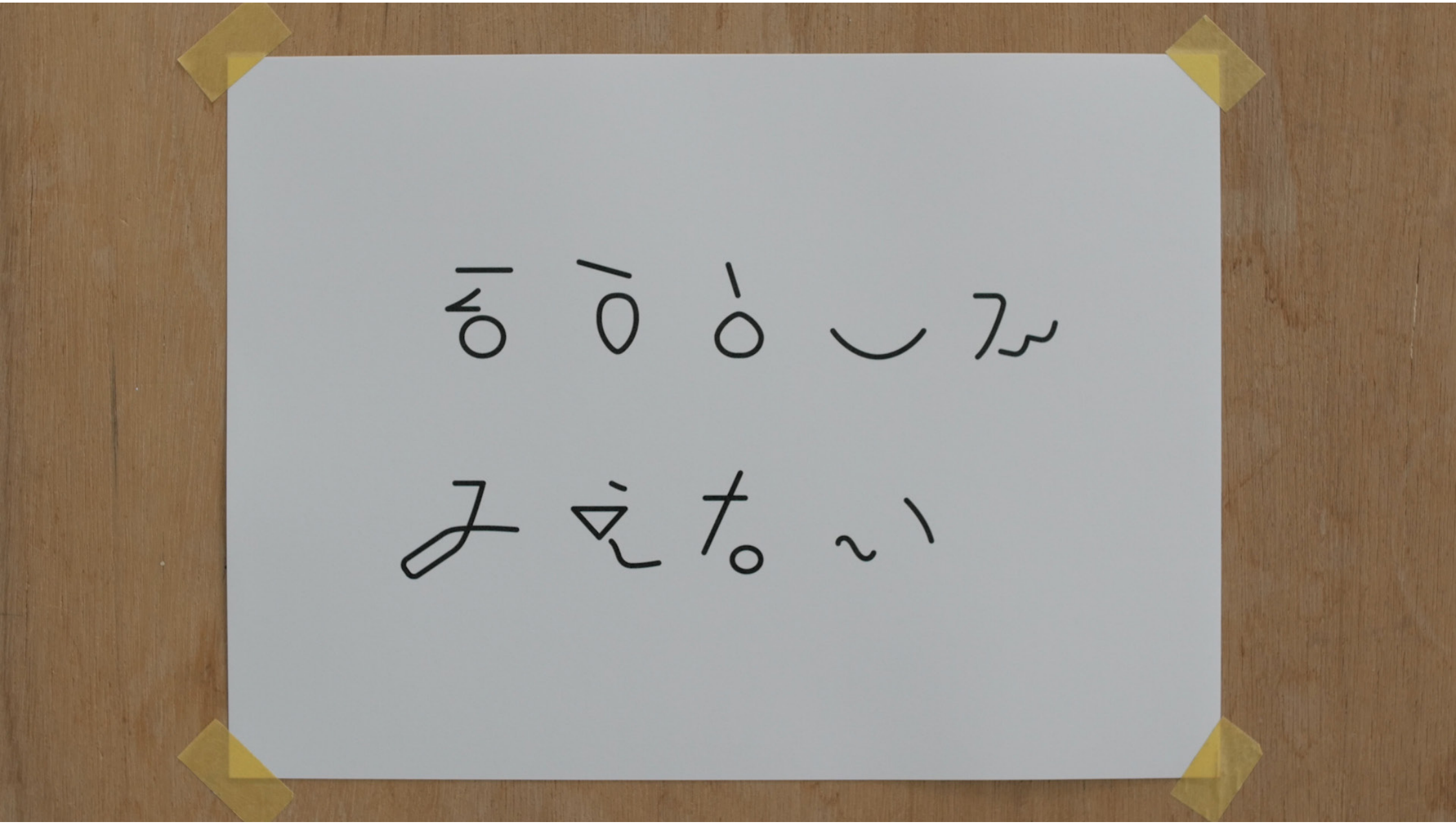


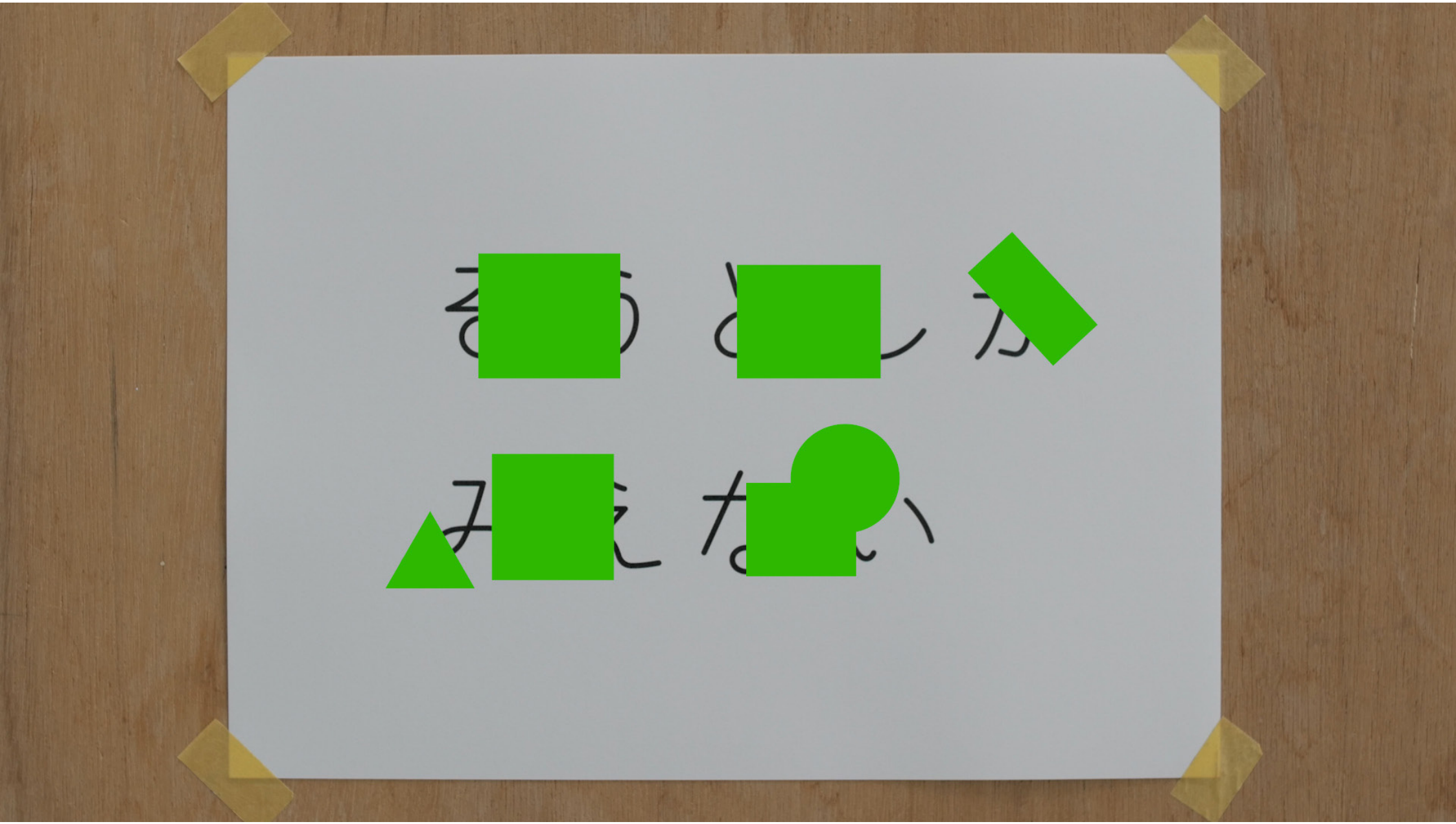









おおきい
みえない


そうとしか
みえない

石川 将也
Masaya Ishikawa
＋
田谷 修一郎
Shuichiro Taya

design and cognition

07 completion