

**MÓDULO DE  
LECTOCOMPREENSIÓN  
EN INGLÉS  
DISEÑO INDUSTRIAL  
GUÍA 4**

**Propósitos de Lectura:**

- ✦ Aplicar distintas estrategias de lectura.
- ✦ Reconocer la estructura de una memoria descriptiva.
- ✦ Identificar elementos que indican referencia textual.
- ✦ Identificar las funciones de la forma -ing.
- ✦ Reconocer vocabulario de la especialidad y dar su equivalente en español.

- Las actividades 2, 3, 4, 5, 6 y 7 se encuentran en formato cuestionario en el AV y son de realización obligatoria.
- La respuesta de las actividades 1, 8, 9 y 10 se discutirá en el encuentro sincrónico.
- Al final, encontrará una sección de autoevaluación.



**Actividad 1.** Lea las secciones “case study” en el siguiente texto. ¿Puede identificar alguna de las secciones propuestas en la Guía #3 para la “arquitectura interna” de las memorias descriptivas (o estudios de caso) contenidas en el texto? En caso afirmativo, ¿en la descripción de qué silla y qué sección/secciones?



**Actividad 2.** Ahora, lea el texto en forma específica para identificaren el texto el equivalente en inglés de los siguientes grupos nominales:

- 36 sillas desmontadas
- el diseño de la silla
- la forma de la silla
- la primera silla producida en serie
- la primera versión de esta silla
- la producción de una silla en voladizo
- la producción en serie de otros artículos
- muebles producidos en serie
- una estructura alternativa para las sillas
- una silla en voladizo que se construye con una sola pieza de material

## **M For manufacturing & materials**

### **How new technologies influence chair design**

Until the start of the twentieth century, few chairs were made in anything but the traditional shape, relying on decoration as a means of differentiation, but designers were quick to apply new materials and manufacturing processes developed throughout the century to this basic product.

#### **Case Study: Chair No 14**

This was probably the first mass-produced chair and was designed and first manufactured by Michael Thonet & Sons in 1865. It is still in production today.

The original method of production involved boiling beechwood strips in glue and then bending them using iron moulds. Thonet had set up sales offices in major cities which enabled the chair to be sold worldwide but the high humidity in tropical areas caused the glue to dissolve. In response to this problem Thonet developed a new method of bending solid wood with steam and replaced the glued wooden peg joints with screws. One advantage of this method of production meant that the chairs could be shipped and sold 'flatpacked'. A crate measuring 1 cubic metre could hold 36 dismantled chairs.



#### **Mass-production**

Some designers experimented with new processes in order to meet the need for mass-produced furniture. Others looked at the materials used for the mass-production of other items and applied them for the first time to making chairs.

#### **Case study: B3, or Wassily Chair**

Although tubular steel had been used for public furniture - in hospitals, cars and aeroplanes - since the late nineteenth century, Marcel Breuer's B3 Club armchair of 1925 was the first of its kind.

At the time Breuer was the director of the wood workshop at the Bauhaus art school in Dessau. He took his idea from the tubular frame of his bicycle but the bike's manufacturer was not interested, so Breuer worked with a plumber to produce the initial prototypes from cold-bent nickel-plated tubular steel. In 1926 he founded a manufacturing company, Standard Mobil, in order to market the designs and after some initial changes the chair went into production. It could be shipped and sold disassembled: more than 50 chairs could be packed into a crate measuring 1 cubic metre.



The chair was named 'Wassily' in honour of Breuer's colleague at the Bauhaus, the painter Wassily Kandinsky.

### **Materials and structures**

In the early 1920s many designers were experimenting with alternative structures for chairs. The production of a cantilevered chair was a challenge that inspired many of them. The Dutch architect Mart Stam was probably the first to achieve this but it was the B64 Chair designed by Marcel Breuer in 1928 that became the most famous example: it is still in production today. In the 1950s Verner Panton worked on a cantilevered chair to be constructed from a single piece of material. He achieved this in 1955 with his S-Chair, which was made from moulded laminated wood. This was a forerunner of his most famous cantilevered chair, the Panton Chair, which is mass-produced today in polypropylene.

Contemporary designers are still exploring the possibilities of creating a cantilevered chair in different materials. The Aluminium Flange Chair is manufactured to order by Foundation 33. It is made from two continuous strips of 4mm thick aluminium that are bent and welded to create a central structural flange. This is then bent in three different directions to form the chair. As the material is weak the central flange is essential to provide strength. Although the chair will support the weight of the body, even a simple sideways push will result in the structure wobbling.

### **Computers**

The development of computer-aided design and manufacture (CAD/CAM) has opened up many new design opportunities. As a result, designers are now creating chairs that in the past would have been completely impossible to manufacture successfully.

### **Case study: Slice Chair**

The designer of this chair, Mathias Bengtsson, was inspired to create an organic piece that explored and made obvious the actual process of manufacture.

Bengtsson was born in Denmark and, following his graduation from the Danish Design School in Copenhagen, joined the Royal College of Art furniture course in 1998. The first version of this chair made its debut at his final year show at the RCA, London.

The chair form is modelled in 3D on a computer, then sliced into layers by the software. Each slice has a unique size and profile, much like a giant butterfly, which is cut out of a sheet of material. These 2-D pieces are stacked one on top of the other to create the 3D form. The cutting pattern of the sheets has been researched carefully to reduce waste to a minimum.



Education Department. Design Museum. (2001). London.



## ACTIVIDADES SOBRE ELEMENTOS DEL LENGUAJE

**FORMA -ING** Esta forma puede cumplir distintas funciones (sustantivo o adjetivo: premodificador o posmodificador) y, por lo tanto, en español, se interpretará de diversas maneras según la función que cumpla.

**Actividad 3.** Observe los siguientes ejemplos para, luego, elegir el equivalente correcto en español de las palabras resaltadas. Tenga en cuenta el contexto donde aparecen.

i. ...designers were quick to apply new materials and **manufacturing** processes developed throughout the century to this basic product. (r.4-5-6)

fabricando ☐

fabricación ☐

fabricante ☐

ii. The original method of production involved **boiling** beechwood strips in glue... (r. 11-12)

hirviendo ☐

hervir ☐

hervida ☐

iii. Others looked at the materials used for the mass-production of other items and applied them for the first time to **making** chairs. (r. 22-23)

fabricando ☐

fabricar ☐

fabricante ☐

iv. In the early 1920s many designers were **experimenting** with alternative structures for chairs. (r. 42)

experimentando ☐

experimento ☐

experimentar ☐

v. ...a simple sideways push will result in the structure **wobbling**. (r. 55-56)

tambaleando ☐

tambaleo ☐

tambaleada ☐

**Actividad 4.** Según las respuestas del ejercicio anterior, ¿cuál/es de las siguientes afirmaciones son verdaderas y cuáles falsas?

- i. En todas las oraciones, las palabras resaltadas terminadas en -ing funcionan como adjetivos.
- ii. En todos estos ejemplos, la forma -ing puede asociarse a la terminación -ando/-endo en español.
- iii. En algunos de los ejemplos, la palabra resaltada terminada en -ing funciona como sustantivo.
- iv. Estos ejemplos ilustran que la forma -ing puede ser usada como verbo, adjetivo o sustantivo.

- En inglés, la forma **-ing** puede tener tres funciones gramaticales: **sustantivo, adjetivo, verbo**.

**Actividad 5.** Teniendo en cuenta lo presentado anteriormente, lea los siguientes fragmentos sobre la Silla Aeron para identificar la categoría gramatical (verbo, sustantivo o adjetivo) a la que pertenecen las palabras resaltadas en inglés. Luego, elija el equivalente correcto en español.



i. The Aeron chair's unique Pellicle suspension helps to eliminate uncomfortable, circulation-restricting pressure points by properly distributing weight across the seat and backrest.

|           | <b>sustantivo</b>                                     | <b>adjetivo</b>                                        | <b>verbo</b>                          |
|-----------|-------------------------------------------------------|--------------------------------------------------------|---------------------------------------|
| <b>a.</b> | <b>puntos de presión restringiendo la circulación</b> | <b>puntos de presión que restringen la circulación</b> | <b>puntos de presión restrictivos</b> |

ii. The Pellicle suspension helps to centre weight over the sitting bones and distribute pressure away from the spine and the backs of the thighs.

|           | <b>sustantivo</b>               | <b>adjetivo</b>              | <b>verbo</b>         |
|-----------|---------------------------------|------------------------------|----------------------|
| <b>b.</b> | <b>sentándose en los huesos</b> | <b>los huesos de asiento</b> | <b>los isquiones</b> |

iii. One hazard of prolonged sitting is heat and humidity build-up due to the insulating properties of foam-and-fabric chair cushions.

|           | <b>sustantivo</b>                     | <b>adjetivo</b>                    | <b>verbo</b>                                  |
|-----------|---------------------------------------|------------------------------------|-----------------------------------------------|
| <b>c.</b> | <b>sentarse por tiempo prolongado</b> | <b>la prolongación del asiento</b> | <b>prolongando el asiento</b>                 |
|           | <b>sustantivo</b>                     | <b>adjetivo</b>                    | <b>verbo</b>                                  |
|           | <b>aislar propiedades</b>             | <b>aislando propiedades</b>        | <b>las propiedades aislantes/de aislación</b> |

iv. The chair provides support in a range of forward-facing positions, so the user can make significant changes in posture without interrupting concentration.

|    |                                                       |                                        |                                     |
|----|-------------------------------------------------------|----------------------------------------|-------------------------------------|
| d. | <b>sustantivo</b>                                     | <b>adjetivo</b>                        | <b>verbo</b>                        |
|    | <b>posiciones orientadas al frente/hacia adelante</b> | <b>adelantando posiciones</b>          | <b>posiciones adelantadas</b>       |
|    | <b>sustantivo</b>                                     | <b>adjetivo</b>                        | <b>verbo</b>                        |
|    | <b>concentración interrumpida</b>                     | <b>interrumpiendo la concentración</b> | <b>interrumpir la concentración</b> |

- Ver la presentación en la que se explican las funciones de la forma -ing.

**Actividad 6. Elija la opción correcta:**

- La palabra “it” (r. 9) en “It is still in production today...” hace referencia/sustituye a:**
  - Michael Thonet and Sons
  - La silla #14
  - Producción original
- La palabra “others” (r. 22) en “Others looked at the materials used for the mass-production of other items...” hace referencia/sustituye a:**
  - Experimentos
  - Mobiliario producido industrialmente
  - Diseñadores
- El pronombre “he” (r.34) en “...he founded a manufacturing company” hace referencia/sustituye a:**
  - Standard Mobel
  - Breuer
  - Plomero
- La palabra “his” (r. 47) en “...his S-Chair” hace referencia/sustituye a:**
  - Verner Panton
  - Mart Stam
  - Marcel Breuer

En los siguientes fragmentos, la expresión resaltada sustituye a algo o alguien mencionado previamente. Conteste las preguntas a modo de ayuda para entender la relación entre los dos elementos –el referente y la expresión resaltada en un recuadro.

This was probably the first mass-produced chair and was designed and first manufactured by Michael Thonet & Sons in 1865. It is still in production today.

La palabra IT, ¿señala a un sujeto animado o inanimado?

Breuer worked with a plumber to produce the initial prototypes from cold-bent nickel-plated tubular steel. In 1926 he founded a manufacturing company, Standard Mober, ...

La palabra HE ¿sustituye a un objeto o a una persona?

In the 1950s Verner Panton worked on a cantilevered chair to be constructed from a single piece of material. He achieved this in 1955 with his S-Chair, which was made from moulded laminated wood.

¿La palabra HIS hace referencia a una persona o a un objeto? Por indicar posesión, 'his' se combina, en este ejemplo con 'chair'. ¿De quién es la silla?

Para construir el sentido del texto, una de las estrategias que el lector necesita es rastrear de quién o de qué se habla. La recuperación de la identidad del participante (sujeto que realiza la acción) puede hacerse de dos formas dependiendo del lugar donde se encuentre la información relevante.

En un texto podemos buscar esa información mirando hacia atrás (referencia ANAFÓRICA):

- **Opsvik** discovered that there were no chairs that would allow his child to sit at a comfortable height at the grown-ups' table. (...) **He** started by drawing people sitting with their elbows at tabletop level.

O mirando hacia adelante (referencia CATAFÓRICA):

- During the development of **her** design, **Florence Knoll** discovered the benefits of the new material.

- Ver la presentación en la que se explica cómo identificar elementos de sustitución.

**Actividad 7.** Indique si los siguientes enunciados son verdaderos (V) o falsos (F), según la información ofrecida por el texto. a) En caso de ser falsos (F), corrijalos en forma completa y en español. (Hay un ejemplo al comienzo.)

| Enunciados                                                                                                                                                                             | V/F      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| a. La palabra <b>“his”</b> (renglón 30) en <i>“his idea from the tubular frame of...”</i> hace referencia a <i>“bicicleta”</i> .<br>Corrección: <i>“HIS” HACE REFERENCIA A BREUER.</i> | <b>F</b> |
| b. La palabra <b>“it”</b> (renglón 37) en <i>“It could be shipped...”</i> remite a <i>“Standard Mobel”</i> .<br>Corrección: .....                                                      |          |
| c. La palabra <b>“them”</b> (renglón 43) en <i>“...that inspired many of them”</i> hace referencia a <i>“diseñadores”</i> .<br>Corrección: .....                                       |          |
| d. La palabra <b>“it”</b> (renglón 45) en <i>“it is still in production today”</i> hace referencia a <i>“la silla B64”</i> .<br>Corrección: .....                                      |          |
| e. La palabra <b>“which”</b> (renglón 49) en <i>“which is mass-produced today in polypropylene”</i> hace referencia a <i>“madera laminada”</i> .<br>Corrección: .....                  |          |
| f. La palabra <b>“his”</b> (r. 65) en <i>“...following his graduation...”</i> hace referencia a <i>“Danish Design School”</i> .<br>Corrección: .....                                   |          |
| g. La palabra <b>“its”</b> (r.68) en <i>“...its debut at his final year show...”</i> hace referencia a <i>“Slice Chair”</i> .<br>Corrección: .....                                     |          |



**Actividad 8. A modo de cierre, lea el texto a continuación realice las actividades propuestas:**

## **Important Art by Marcel Breuer**

### **Club chair (model B3) (1927-1928)**

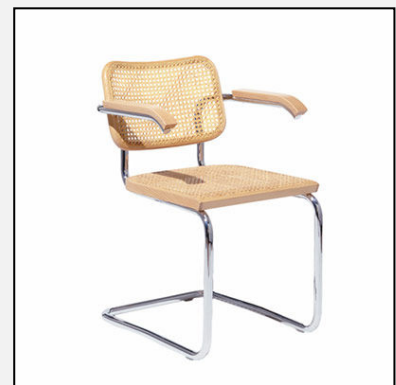
Artwork description & Analysis: Made of leather and cantilevered steel, the Wassily chair has become one of the world's most enduring and iconic pieces of furniture. Breuer designed the chair at the age of the 23, while still an apprentice at the famed Bauhaus in Weimar, Germany. Inspired by the Constructivist principles of the De Stijl movement and the frame of a bicycle, the Wassily chair distills the type to its bare essentials, reflecting the Bauhaus' proclivity for functionality and simplicity. Breuer viewed the



bicycle as an object that represented the paragon of design, owing in part to the fact that its form had remained largely unchanged since its inception. The tubular steel of the bicycle's handlebars also intrigued Breuer, as it was light, durable, and suitable for mass production (a manufacturer by the name Mannesman had recently perfected a type of seamless steel tubing that was capable of being bent without collapsing). Breuer once mused to a friend regarding the bicycle, "Did you ever see how they make those parts? How they bend those handlebars? You would be interested because they bend those steel tubes like macaroni." Breuer bent the steel components so that they were devoid of any weld points and could thus be chromed piecemeal and assembled. He named the chair after the painter Wassily Kandinsky, a professor at the Bauhaus, who was so enamored by the piece during a visit to Breuer's studio that Breuer fashioned a duplicate for Kandinsky's home. First mass-produced by Thonet, the license for manufacturing the chair was picked up after World War II by the Italian firm Gavina, which was in turn bought out by the American company Knoll in 1968. Knoll retains the design trademark and the chair remains in production today.

### **Cesca Chair (Ca. 1928)**

Artwork description & Analysis: Shortly after finishing his design for the "Wassily" chair, Breuer continued his explorations of the plastic possibilities of tubular steel with the B32, or The Cesca Chair, as it is now popularly called. In this case, he molded the material into a single, snaking outline onto which he attached two beechwood frames covered in caning. The form of the frame - where the seat and back are supported only by the legs at the front - comprises the first cantilevered chair design in history, a feat only possible due



|                                                                     |                                                                                                    |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 35                                                                  | to the seamless steel tubing that resists collapsing when bent. With ease, Breuer's design thus    |
|                                                                     | marries the traditional methods of craftsmanship - the woven caning hand-sewn into the wood        |
|                                                                     | frame - with the industrially mass-produced tubular steel. The chair takes its popular name from   |
|                                                                     | that of Breuer's daughter Francesca; the moniker was suggested by the Italian furniture            |
|                                                                     | manufacturer Dino Gavina, whose firm started making the Cesca (and the B3 Wassily chair) with      |
| 40                                                                  | Breuer's permission in the 1950s before being bought out by Knoll in 1968.                         |
|                                                                     | Despite the iconic stature of the original design, Breuer himself made several modifications to    |
|                                                                     | the Cesca in later years, including choosing a shallower curve for the back and strengthening      |
|                                                                     | the beechwood frame by manufacturing it from two pieces instead of one. Since the Cesca's          |
|                                                                     | introduction, literally millions of versions have been sold to decorate homes and office buildings |
| 45                                                                  | around the world, making it arguably Breuer's most popular chair.                                  |
| <a href="http://www.theartstory.org">http://www.theartstory.org</a> |                                                                                                    |

**Actividad 9.** Decida a cuál de las dos sillas, Club Chair-Model B3 o Cesca, pertenece la siguiente información. (Hay dos enunciados que no pertenecen a ninguna de las sillas mencionadas.)

| Enunciados                                                                           | Silla | Renglón |
|--------------------------------------------------------------------------------------|-------|---------|
| i. Combina métodos tradicionales con el acero tubular producido en forma industrial. |       |         |
| ii. Creada cuando era estudiante de la Bauhaus.                                      |       |         |
| iii. El asiento y el respaldo están sostenidos por las patas delanteras.             |       |         |
| iv. Hecha de cuero y acero en ménsula/voladizo.                                      |       |         |
| v. Hecha de madera contrachapada.                                                    |       |         |
| vi. Producida industrialmente primero por Thonet.                                    |       |         |
| vii. Sufrió modificaciones en el diseño.                                             |       |         |
| viii. Tiene un almohadón relleno de espuma de poliuretano.                           |       |         |
| ix. Lleva el nombre de su hija.                                                      |       |         |

**Actividad 10.** Elija el equivalente correcto en español de las siguientes frases.

| a) the tubular steel of the bicycle's handlebars (r. 11-12) |                                                   |                                                 |
|-------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------|
| i) el manillar de acero tubular de la bicicleta             | ii) el acero tubular del manillar de la bicicleta | iii) la bicicleta con manillar de acero tubular |

| b) weld points (r. 17) |                       |                          |
|------------------------|-----------------------|--------------------------|
| i) soldado puntiagudo  | ii) soldado en puntos | iii) puntos de soldadura |

| c) a single, snaking outline (r. 29) |                                             |                                                    |
|--------------------------------------|---------------------------------------------|----------------------------------------------------|
| i) un solo boceto curvo              | ii) una única estructura serpenteante/curva | iii) una curva serpenteante única en la estructura |

| d) two beechwood frames covered in caning (r. 30-31)                 |                                                                    |                                                                |
|----------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------------|
| i) dos marcos/estructuras de madera de haya cubiertas con esterillas | ii) las esterillas en los dos marcos/estructuras de madera de haya | iii) dos esterillas de madera de haya que cubren la estructura |

| e) the seamless steel tubing that resists collapsing when bent (r. 34) |                                                          |                                                                       |
|------------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------|
| i) los tubos de acero sin juntas, resistentes y curvos                 | ii) la resistencia al quiebre del acero tubular continuo | iii) el acero tubular continuo que resiste el quiebre cuando se curva |



**Recuerde extraer las palabras, frases y términos que considere importantes de esta guía para, luego, incorporarlos en el glosario colaborativo.**  
**Por ejemplo: beechwood**



**Actividad 11.** Lea nuevamente los objetivos de esta guía. Tilde ✓ en la lista de la primera columna los que alcanzó. Luego, califique el nivel que considera haber alcanzado en cada uno.

| Objetivos                                                                                          | Nivel |   |   |
|----------------------------------------------------------------------------------------------------|-------|---|---|
|                                                                                                    | MB    | B | R |
| <input type="checkbox"/> Aplicar distintas estrategias de lectura                                  |       |   |   |
| <input type="checkbox"/> Reconocer la estructura de una memoria descriptiva                        |       |   |   |
| <input type="checkbox"/> Reconocer elementos que indican referencia textual                        |       |   |   |
| <input type="checkbox"/> Reconocer funciones de la forma -ing.                                     |       |   |   |
| <input type="checkbox"/> Reconocer vocabulario de la especialidad y dar su equivalente en español. |       |   |   |

**Complete las siguientes oraciones:**

- *Considero que mi actuación en la resolución de las actividades de esta guía fue .....*
- *Un aspecto que debería mejorar con respecto a mi abordaje de los textos en inglés es .....*