

# Typography 101



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# Typography?

a set of rules  
and common practices  
for the visual presentation  
and structure of text elements.

***Legibility***

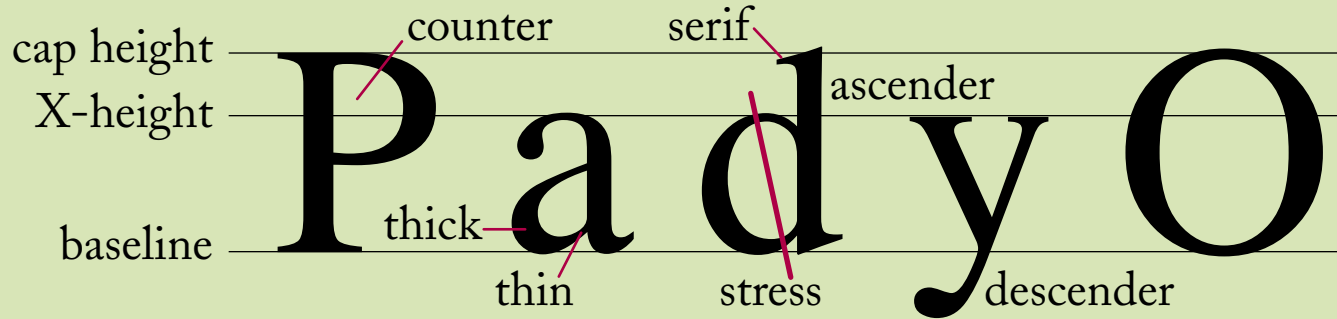
***Readability***

***Proper punctuation and syntax***

# Building blocks...

## Characters

### key anatomy



# Characters...

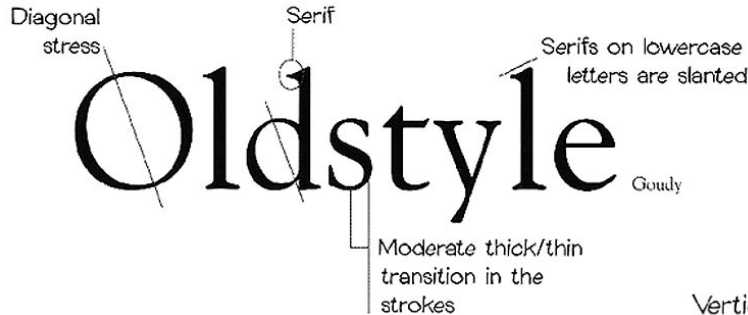
k

## Classification

Class	Order	Family	Genus	Species
		Family	Face	Font
<i>type</i>	<i>Slab serif</i>	<i>Gloucester</i>	<i>condensed</i>	<i>10pt</i>

# Classification: Order

Diagonal stress  
Serif  
Serifs on lowercase letters are slanted  
Goudy  
Moderate thick/thin transition in the strokes

A diagram illustrating the features of Oldstyle typography. The word "Oldstyle" is written in a classic serif font. A diagonal line passes through the 'O' and 'l', labeled "Diagonal stress". A small circle highlights the top of the 'l', labeled "Serif". A line points to the slanted serifs on the lowercase letters 'd' and 'e', labeled "Serifs on lowercase letters are slanted". The name "Goudy" is written below the word. A bracket under the 'l' and 'd' is labeled "Moderate thick/thin transition in the strokes".

Goudy Palatino Times  
Baskerville Garamond

Vertical stress  
Serifs on lowercase letters are thin and horizontal  
Bodoni Poster Compressed  
Radical thick/thin transition in the strokes

A diagram illustrating the features of Modern typography. The word "Modern" is written in a bold, condensed serif font. A vertical line passes through the 'M', labeled "Vertical stress". A line points to the thin, horizontal serifs on the lowercase letters 'd' and 'e', labeled "Serifs on lowercase letters are thin and horizontal". The name "Bodoni Poster Compressed" is written below the word. A bracket under the 'M' and 'd' is labeled "Radical thick/thin transition in the strokes".

Bodoni Times Bold

Fenice, **Ultra** Walbaum

# Classification: Order

Serifs on lowercase letters are horizontal and thick (slabs)

Vertical stress

## Slab serif

Clarendon

Very little or no thick/thin transition, or contrast, in the strokes

Clarendon      Memphis  
**Memphis Extra Bold**  
New Century Schoolbook

No serifs anywhere

No stress because there's no thick/thin

## Sans serif

Franklin Gothic

No thick/thin transition in the strokes

**Antique Olive Syntax**  
**Gill Sans Folio Formata**  
**Franklin Gothic**



# Classification: Family

ABCDEFGHIJKLMNOPQRSTUVWXYZ REGULAR  
ROMAN (VERTICAL)  
ABCDEFGHIJKLMNOPQRSTUVWXYZ ITALIC (OBLIQUE)

Hairline Thin ExtraLight Light Book Regular Medium  
**DemiBold Semi Bold Heavy Black Ultra**

ABCDEFGHIJKLMNOPQRSTUVWXYZ REGULAR  
ABCDEFGHIJKLMNOPQRSTUVWXYZ CONDENSED  
ABCDEFGHIJKLMNOPQRSTUVWXYZ EXPANDED

Extra Condensed **Ultra Compressed Extra Compressed Compressed**  
**Narrow Extended Expanded Wide**

○**U**TLINE INLINE LINED Hi-Lite **C**ontour

**Shaded** **Raised Shadow** **DROP SHADOW** RELIEF

Alternative characters:

AAABCDEFGGHIJKLMN\N\NOPQRSTUVWXYZVVVWXYZ  
abcdeefghijklmnopqrstuvv\w\wxyz

And ornamental or swash characters:

AA<sup>~</sup>AA<sup>~</sup>AA<sup>~</sup>AA<sup>~</sup> B<sup>~</sup>B<sup>~</sup>C<sup>~</sup>D<sup>~</sup>E<sup>~</sup>E<sup>~</sup>F<sup>~</sup>F<sup>~</sup>G<sup>~</sup>G<sup>~</sup>H<sup>~</sup>H<sup>~</sup>

These variations are designed, not computer generated...

Most families have four or less variations...

*Regular*

*Italic*

**Bold**

***Bold Italic***

# Classification: Family

Note: italic vs. oblique  
*italic* vs. *oblique*

Note: display?  
display?

# Classification: Face

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ abcde	<b>12pt</b>
ABCDEFGHIJKLMNOPQRSTUVWXYZ abcde ÆŒæ	<b>18pt</b>
ABCDEFGHIJKLMNOPQRSTUVWXYZ abcde ABCDE ÆŒæ 123456 123456 1/8 1/4 3/8 @ # \$ % [ ] * †	ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghijklmnopqrstuvwxyz ABCDEFGHIJKLMNOPQRSTUVWXYZ ABCDEFGHIJKLMNOPQRSTUVWXYZ ÆŒæœ ÆŒ fiffiffi fl fiffiffi 1234567890 1234567890 1234567890 1/8 1/4 3/8 1/2 5/8 3/4 7/8 1/8 1/4 3/8 1/2 5/8 3/4 7/8 @ # & £ & @ # & £ [ ] * †   ±    § ¶ — ... : ' ! ? ( ) ... : ' ! ? ( )

All the sizes of a particular family variation.

# Classification: Font

For each typeface there is what is called a *font*, embracing a collection of characters.

ROMAN CAPITALS AND LOWERCASE ABCDEFGHIJKLMNOPQRSTUVWXYZ  
abcdefghijklmnopqrstuvwxyz

ITALIC CAPITALS AND LOWERCASE *ABCDEFGHIJKLMNOPQRSTUVWXYZ*  
*abcdefghijklmnopqrstuvwxyz*

SMALL CAPITALS ABCDEFGHIJKLMNOPQRSTUVWXYZ

LIGATURES Æ œ æ œ Æ œ fi fl ffi ffl fi fl ffi ffl

LINING FIGURES 1234567890 1234567890

OLD STYLE FIGURES 1234567890

FRACTIONS 1/8 1/4 3/8 1/2 5/8 3/4 7/8 1/8 1/4 3/8 1/2 5/8 3/4 7/8

SPECIAL CHARACTERS @ # \$ % & ' ( ) \* + , - . : ; ' ! ? ( )

PUNCTUATION MARKS [ ] \* † ‡ § ¶ — , . ; ' : ' ! ? ( ) , . ; ' : ' ! ? ( )

Most fonts do not contain a full set of characters.  
Italics are usually contained in a separate “font.”

# Classification: big picture

10 Helvetica  
12 Helvetica  
14 Helvetica  
18 Helvetica

Font

Face

Light  
**Black**  
Condensed  
**Condensed Black**  
**Inserat**  
Narrow

Family

# Choosing a font (family)

## *Analyze your project*

- Legibility & Readability
- Fit its style
- Reproduction
- Space

***1 from column A & 1 from column B***  
Choose 2 to 3 orders of type

# Your project?

## Scan or read?

### Readability

How easy a large amount of text is to read.

### Legibility

How recognizable is a short burst of text.

Wants pawn term  
gull hoe lift wether  
murder inner ladle  
cordage honor ich  
offer lodge, dock,  
florist. Disk ladle  
gull orphan worry  
patty ladle rat chuck  
wetter ladle rat hut,  
an far disk raisin  
pimple colder Ladle  
Rat Rotten Hut.

Was mourning Ladle  
Rat Rotten Hut's  
murder colder inset.  
"Ladle Rat Rotten  
Hut, heresy ladle  
baking wisome  
burden barter an  
shirker cockles. Tick  
disk ladle basking  
tutor cordage offer  
groin-murder hoe  
lifts honoo oder sit  
offer florist. Shaker  
lake! Dun stopper  
laundy weter! Dun  
stopper peck floes!  
Dun daily-daily in

"Ohoel! Heifer puts  
woke," setter wicket  
woof, butter taught  
tomb sheif. "Oll  
tickle shirt court  
tutor cordage offer  
groin-murder. Oil  
ketchup weter let-  
ter, and den—O  
boel!"

Soda wicket woof  
tucker shirt court, an  
whiny retched a  
cordage offer groin-  
murder, picked in-  
ner windrow, an  
sore debor pore oil  
worming wore-loo  
inner bet.

Inner flesh, disk  
abdominal woof  
lipped honor bet,  
paunched honor  
pore oil worming,  
any garbled ewp.  
Den disk ratcheam-  
monol pot honor  
groin-murder's nut  
cup an gus-gun, any  
curdled ope inner

Wants pawn term  
gull hoe lift wether  
murder inner ladle  
cordage honor ich  
offer lodge, dock,  
florist. **Disk ladle  
gull orphan worry  
patty ladle rat chuck**  
wetter ladle rat hut,  
an far disk raisin  
pimple colder Ladle  
Rat Rotten Hut.

Was mourning Ladle  
Rat Rotten Hut's  
murder colder inset.  
"Ladle Rat Rotten  
Hut, heresy ladle  
baking wisome  
burden barter an  
shirker cockles. Tick  
disk ladle basking  
tutor cordage offer  
groin-murder hoe  
lifts honoo oder sit  
offer florist. Shaker  
lake! Dun stopper  
laundy weter! Dun  
stopper peck floes!  
Dun daily-daily in

Inner flesh, disk  
abdominal woof  
lipped honor bet,  
paunched honor  
pore oil worming,  
any garbled ewp.  
Den disk ratcheam-  
monol pot honor  
groin-murder's nut  
cup an gus-gun, any  
curdled ope inner

"O boel! Heifer puts  
woke," setter wicket  
woof, butter taught  
tomb sheif. "Oll  
tickle shirt court  
tutor cordage offer  
groin-murder. Oil  
ketchup weter let-  
ter, and den—O  
boel!"

Soda wicket woof  
tucker shirt court, an  
whiny retched a  
cordage offer groin-  
murder, picked in-  
ner windrow, an  
sore debor pore oil  
worming wore-loo  
inner bet.

Inner flesh, disk  
abdominal woof  
lipped honor bet,  
paunched honor  
pore oil worming,  
any garbled ewp.  
Den disk ratcheam-  
monol pot honor  
groin-murder's nut  
cup an gus-gun, any  
curdled ope inner

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# How do we read?

When we read quickly or for an extended period, we read by recognizing the shapes of the words.

Momma Poppa Sister Brother

MOMMA POPPA SISTER BROTHER

*Is this word Momma, Poppa, Sister, or Brother?*



*Does this shape represent the word cat, dog, or garbage?*



**Whose's on place like home.**

**Found in word in  
found indeed.**

# Scan or read?

horizontality  
horizontality

**As a general rule...**

**Serif fonts—particularly Oldstyle—  
are the most readable.**

**Sans Serif fonts are the most legible.**

# Your project?

*Fit the face personality to  
your project's style...*





**Anger!**

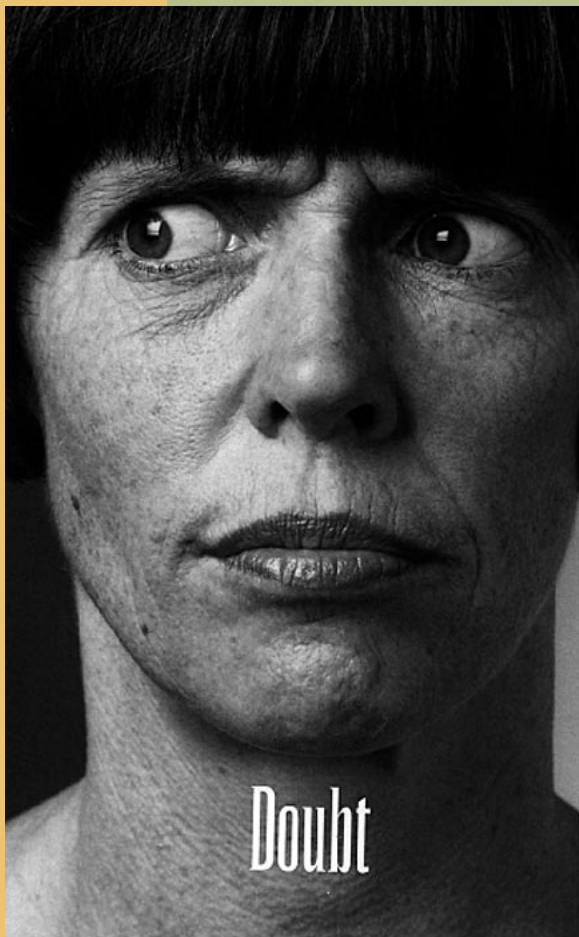
Flyer Extra Black Condensed

**Anger!**

Poplar

**Anger!**

Block Heavy



**Doubt?**

Runic Condensed

**Doubt?**

Rockwell Condensed

**Doubt?**

Block Extra Condensed

*Doubt?*

Linocript



Surprise

Nistral

Surprise

Arca dia

Surprise

Auril



JOY

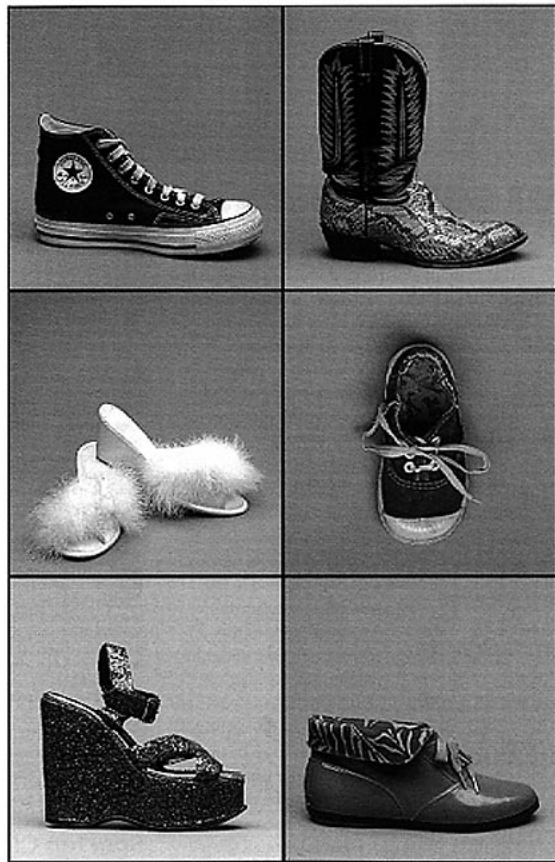
IIC Kabel Book

JOY

Syntax

JOY

Lithos Regular



**Cooper Black**

**MESQUITE**

Arnold Böcklin

Berthold City

Tekton

*Snell Roundhand*

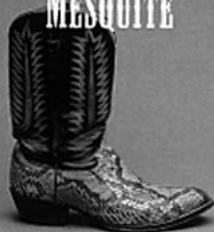


In some cases it  
is very easy to  
spot a typographic  
mistake.

Berthold City



MESQUITE



*Snell Roundhand*



**Cooper Black**



Arnold Böcklin



Tekton



# Reproduction method

***Poor reproduction? On-line?***

***Pick a font that has...***

- Sturdy serifs
- No fine lines or details
- Larger X-height
- Open counters

# Space considerations?

## *Need to fill space?*

Some fonts take up more room.

ITC New Baskerville 24pt

Some fonts take up more room.

Adobe Garamond Pro 24pt

## *Cramped for space?*

Some fonts take up less room.

Gill Sans 24pt

Some fonts take up less room.

Frutiger 24pt

# Mix fonts to add interest and structure

## *Choose 2 to 3 orders of type*

- No more than three
- Pick fonts that have obvious differences
- Pick fonts that go well with each other...

**Easy:** one serif and one sans serif font

**Hard:** two sans serif fonts

**Really hard:** two serif fonts

**Legibility  
is all about  
characters  
and words**

# Mechanix: size

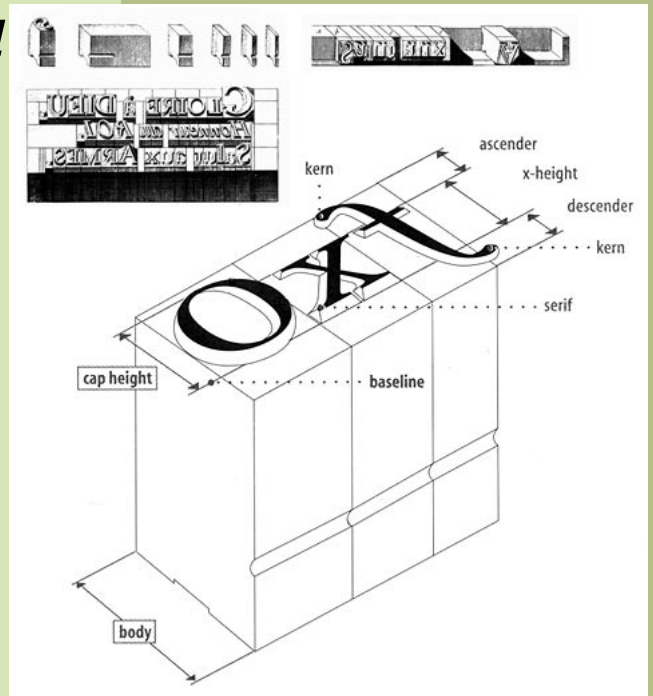
***Type sizes are measured  
in Points and Picas***

- 6 picas per inch
- 12 points per pica
- 72 points per inch

**Type size is based on the  
slug body.**

**These are all 24pt type!**

Typed Typed *Typed* Typed TYPED *Typed*



# Mechanix: leading

***Standard/default leading is 120% of the type size, adjust as needed...***

- line length
- X-height
- larger point sizes
- all caps

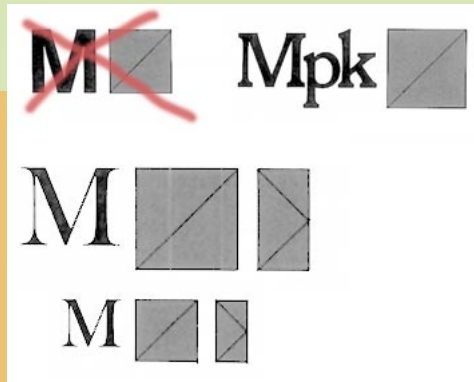
— 24pt type  
— + 4pts of lead  
= 28pt leading

The feat may also herald the wider use of a technique in which a patient's own cells and organs are grown outside the body to repair damaged parts, an approach that has been pioneered for skin to replace that lost by burn victims. Similar work is also in progress on pancreas islet cells to treat diabetes.

# Mechanix: kerning

*Adjusting the space  
between individual letters*

- kerning pairs
- kerning is done in units of  $\frac{1}{1000}$  em



decipherable

Normal spacing between letters

u n d e c i p h e r a b l e

Abnormal or irregular letterspacing

L<sup>^</sup>A<sup>^</sup>T<sup>^</sup>Y<sup>^</sup>V<sup>^</sup>W

MINIMUM

LATYVW

MINIMUM

To To TA PA yo  
To Tr Ta Yo Ya Wo Wa P. we

**WASHINGTON** unknerned

**WASHINGTON** knerned

# Mechanix: tracking

***Adjusting the space between all of the letters in a block of text***

- tracking is intended as a global tool not for individual letter pairs, words, phrases or paragraphs.

***text color?***

NEGATIVE SPACING (tighter)	Spacing between the characters - 2 units
	Spacing between the characters - 1 unit
	Spacing between the characters - 0,5 unit
NORMAL	Spacing between the characters Standard
POSITIVE SPACING (looser)	Spacing between the characters + 0,5 unit
	Spacing between the characters + 1 unit
	Spacing between the characters + 2 units

The feat may also herald the wider use of a technique in which a patient's own cells and organs are grown outside the body to repair damaged parts, an approach that has been pioneered for skin to replace that lost by burn victims. Similar work is also in progress on pancreas islet cells to treat diabetes.

# Mechanix: baseline shift

*Shifting where a character rests; up and down.*

- Parentheses & hyphens when used with numbers and all caps.
  - Using symbols as bullets
  - Creating fractions
  - Creating subscripts & superscripts
- My number is (408)555-6823
  - My number is (408)555-6823
  - My number is (408)555-6823
  - 1/2 for you and 2 10/16 for me
  - ½ for you and 2<sup>10</sup>/16 for me
  - ½ for you and 2<sup>10</sup>/16 for me
  - For the 2<sup>nd</sup> time it's H<sub>2</sub>O!
  - For the 2<sup>nd</sup> time it's H<sub>2</sub>O!
  - For the 2<sup>nd</sup> time it's H<sub>2</sub>O!

# Use the right characters!

*Here are a few categories to consider...*

- Ligatures
- Small caps
- Mono-spaced & old style numbers
- Ornaments & bullets
- Swashes & alternative
- Real quotes and apostrophies not prime marks

**Ligatures** fickle flames

fickl flames

*fickle flames*

*fickl flames*

**Small Caps**

The Wicked Are Very Weary

THE WICKED ARE VERY WEARY

THE WICKED ARE VERY WEARY

THE WICKED ARE VERY WEARY

Harriet, an FBI agent, turned on CNN to get the dirt on the CIA before flying to dinner at 9:36 P.M.

Harriet, an FBI agent, turned on CNN to get the dirt on the CIA before flying to dinner at 9:36 P.M.

**Lining figures**

Rats	7,111
Ravens	6,894
Robots	61

**Oldstyle figures**

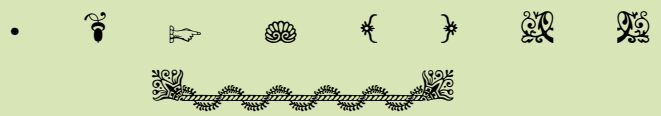
Rats	7,III
Ravens	6,894
Robots	5I

**Mono-spaced  
or tabular**

Rats	7,111
Ravens	6,894
Robots	51

**Italic with swash  
leading characters**

**Bullets &  
ornaments**



**Prime marks**

"The cow's got a gun!"

**Real marks**

“The cow’s got a gun!”

*Really,  
You are invited to the  
Gala performance...*

*Really,  
You are invited to the  
Gala performance...*

# So...

***At least for your body text pick a font that has a large family...***

- Like Adobe Caslon  
or any of  
the Adobe  
Pro fonts  
like Adobe  
Jenson Pro



# Readability is all about blocks of text

- Always make a box for your text don't just click and type.
- Body text should be set at 11 to 9 points. The 12 point default on computers is optimal for screen viewing; it is too big for print.

# How do we read?

From the left to the right.

This is the easiest to read. This is

This Is Harder To Read. easy to

**THIS IS EVEN HARDER TO READ.** read.

This is impossible to read.

You can easily decipher these words by seeing only their tops...  
...but it is much harder to recognize the words by their bottoms

This Visual Hiccuping Serves No Purpose Other Than Tradition

The Quick Brown Fox Jumps Over TLD, That Lazy Dog!  
The quick brown fox jumps over TLD, That Lazy Dog!

# From the left to the right and back again.

The feat may also herald the wider use of a technique in which a patient's own cells and organs are grown outside the body to repair damaged parts, an approach that has been pioneered for skin to replace that lost by burn victims. Similar work is also in progress on pancreas islet cells to treat diabetes.

## ***Left aligned***

The feat may also herald the wider use of a technique in which a patient's own cells and organs are grown outside the body to repair damaged parts, an approach that has been pioneered for skin to replace that lost by burn victims. Similar work is also in progress on pancreas islet cells to treat diabetes.

## ***Justified***

The feat may also herald the wider use of a technique in which a patient's own cells and organs are grown outside the body to repair damaged parts, an approach that has been pioneered for skin to replace that lost by burn victims. Similar work is also in progress on pancreas islet cells to treat diabetes.

## ***Centered***

The feat may also herald the wider use of a technique in which a patient's own cells and organs are grown outside the body to repair damaged parts, an approach that has been pioneered for skin to replace that lost by burn victims. Similar work is also in progress on pancreas islet cells to treat diabetes.

## ***Right aligned***

# Paragraphs... key anatomy

First paragraph in a section or chapter is never indented.

## *indented*

Indent one em space (the point size of the type).

No extra space between paragraphs.

Widow

The achievement, attained in a handful of laboratories, promises to usher in a new era of eye cell transplantation. Many degenerative eye diseases occur because of just one type of cell that runs amok, the researchers say, so it makes sense to replace those cells alone.

The feat may also herald the wider use of a technique in which a patient's own cells and organs are grown outside the body to repair damaged parts, an approach that has been pioneered for skin to replace that lost by burn victims. Similar work is also in progress on pancreas islet cells to treat diabetes.

Major eye diseases that may one day lend themselves to the cell replacement therapy include macular degeneration, glaucoma, cataracts and cloudy corneas. Moreover, by having eye cells available for study in a laboratory dish, scientists say they can better understand the processes of disease and test new drugs on target cells.

## *not indented*

One space between sentences.

The achievement, attained in a handful of laboratories, promises to usher in a new era of eye cell transplantation. Many degenerative eye diseases occur because of just one type of cell that runs amok, the researchers say, so it makes sense to replace those cells alone.

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Major eye diseases that may one day lend themselves to the cell replacement therapy include macular degeneration, glaucoma, cataracts and cloudy corneas. Moreover, by having eye cells available for study in a laboratory dish, scientists say they can better understand the processes of disease and test new drugs on target cells.

abcdefghijklmnopqrstuvwxyabcdefghijklmnopqrstuvwxyabcdefghijklmnopkl

No more than 2.5 alphabets wide.

1/2 leading space between paragraphs.

# A few last things...

## ***Rivers***

In particularly narrow columns like this exaggerated example, justification forces disturbingly artificial word spacing, which results in “rivers” of white space flowing inside the column. Gaps inhibit smooth reading.

In particularly narrow columns like this exaggerated example, justification forces disturbingly artificial word spacing, which results in “rivers” of white space flowing inside the column. Gaps inhibit smooth reading.

## ***Orphen***

A personal view of ocean exploration and changes that are occurring to the ocean environment with thoughts about what can be done to address some of the problems associated with what we’re putting into the oceans and what we’re taking out.

Our Coastal Ocean: Challenges and Solutions. Mike Field, Acting Chief Scientist, Pacific Marine and Coastal Geology team, U.S. Geological Survey. From Monterey Bay to polar and tropical settings, the coastal ocean and the ways in which the USGS is collaborating

with orphans.

Giacomo and Nicole will be talking about underwater habitats and tools for subtidal research. The emphasis of their talks will be the application to conservation-based research in coral reefs and the Monterey Bay. Ongoing research projects will be presented.

The Monterey Submarine Canyon provides a window through which we can observe the animals that inhabit the largest living space on earth - the vast realm of the vast ocean deep.

## ***Hyphenation***

- Limit hyphens to no more than three in a row. Some people limit to one or two.
- Do not hyphenate the last word in a paragraph.
- Do not hyphenate headlines or headings.
- Use discretionary hyphens when hyphenating by hand. A “dischy” at the beginning of a word prevents it from ever being hyphenated.

# Bibliography

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— OR —

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**Stop Stealing Sheep**, Erik Spiekermann and E.M. Ginger, 1983, an Adobe Press book, Berkeley, California: Peachpit Press, ISBN 0-672-48543-5, \$19.95

# Notes?

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