The Rules of Typography



Typographic Terminology

TYPEFACE VS. FONT: Two Definitions

Typeface

Font

THE FULL FAMILY

vs.

ONE WEIGHT

A full family of fonts example: Helvetica Neue

A member of a typeface family example: Helvetica Neue Bold

THE DESIGN

vs.

THE DIGITAL FILE

The intellectual property created by a type designer

A digital file of a typeface

LEADING

16/20

"In a badly designed book, the letters mill and stand like starving horses in a field. In a book designed by rote, they sit like stale bread and mutton on the page. In a well-made book, where designer, compositor and printer have all done their jobs, no matter how many thousands of lines and pages, the letters are alive. They dance in their seats. Sometimes they rise and dance in the margins and aisles."

16/29

"In a badly designed book, the letters mill and stand like starving horses in a field. In a book designed by rote, they sit like stale bread and mutton on the page. In a well-made book, where designer, compositor and printer have all done their jobs, no matter how many thousands of lines and pages, the letters are alive. They dance in their seats. Sometimes they rise and dance in the margins and aisles."



Leading refers to the amount of space between lines of type using points as the measurement. The name was derived from the strips of lead that were used during the typesetting process to create the space. Now we perform this digitally—also with consideration to the optimal setting for any particular typeface.

When speaking about leading we first say the type size "on" the leading. "Sixteen on twenty" or "sixteen on twenty-nine".

Typographic Terminology THE RULES OF TYPOGRAPHY

LEADING

15/10 15/15 15/18 15/26

Good typography, first, makes words readable. At its best, it does something more: it helps express the animating spirit of the ideas behind the words.

Good typography, first, makes words readable. At its best, it does something more: it helps express the animating spirit of the ideas behind the words.

Good typography, first, makes words readable. At its best, it does something more: it helps express the animating spirit of the ideas behind the words.

Good typography, first, makes words readable. At its best, it does something more: it helps express the animating spirit of the ideas behind the words.

When the type and leading are the same, it is called *set solid*. Most software will use the default setting for leading-120% of the type size. Don't let software decide what the ideal leading is—that's your job.

For most occasions, 120%–145% of the point size of the type is suitable. However, consider what is ideal for your typeface and context.

LEADING IN DISPLAY TEXT

I'm obviously a typomaniac, which is an incurable if not mortal disease.

LETTER SPACING/TRACKING

VANCOUVER VANCOUVER VANCOUVER VANCOUVER

Tracking refers to consistent spacing applied to a whole set of characters. Only *track out* uppercase letters and in small bits of copy. Tracked out all caps has potential to hinder legibility. However it can create nice typographic texture when used sensibly.

LETTER SPACING/TRACKING

A man who would letterspace lower case would steal sheep, Frederic Goudy liked to say. If this wisdom needs updating, it is chiefly to add that a woman who would letterspace lower case would steal sheep as well.

Do not letterspace—or track out—lowercase letters without good reason.

LETTER SPACING/TRACKING

A man who would letterspace lower case would steal sheep, Frederic Goudy liked to say. If this wisdom needs updating, it is chiefly to add that a woman who would letterspace lower case would steal sheep as well.

Do not letterspace—or track out—lowercase letters without good reason.

KERNING

NOT KERNED KERNED

WASHINGTON WASHINGTON 1978–2017

Kerning refers to the amount of space between individual letterforms. A typesetter's role is to ensure all display copy has been properly kerned. In well-kerned type, the spacing appears optically balanced between each character.

To kern in InDesign, place the cursor between the two characters, hold the Option key and use the left and right arrow keys on the keyboard to decrease or increase the space.

ALIGNMENT

FLUSH LEFT, RAG RIGHT

"In a badly designed book, the letters mill and stand like starving horses in a field. In a book designed by rote, they sit like stale bread and mutton on the page. In a well-made book, where designer, compositor and printer have all done their jobs, no matter how many thousands of lines and pages, the letters are alive. They dance in their seats. Sometimes they rise and dance in the margins and aisles."

CENTERED

"In a badly designed book, the letters mill and stand like starving horses in a field. In a book designed by rote, they sit like stale bread and mutton on the page. In a well-made book, where designer, compositor and printer have all done their jobs, no matter how many thousands of lines and pages, the letters are alive. They dance in their seats. Sometimes they rise and dance in the margins and aisles."

FLUSH RIGHT, RAG LEFT

"In a badly designed book, the letters mill and stand like starving horses in a field. In a book designed by rote, they sit like stale bread and mutton on the page. In a well-made book, where designer, compositor and printer have all done their jobs, no matter how many thousands of lines and pages, the letters are alive. They dance in their seats. Sometimes they rise and dance in the margins and aisles."

JUSTIFIED

"In a badly designed book, the letters mill and stand like starving horses in a field. In a book designed by rote, they sit like stale bread and mutton on the page. In a well-made book, where designer, compositor and printer have all done their jobs, no matter how many thousands of lines and pages, the letters are alive. They dance in their seats. Sometimes they rise and dance in the margins and aisles."

Flush left, rag right is ideal for long lengths of type. It respects the organic flow of our written language. Justified text can also work, but requires special attention to word and letter spacing as not to have "rivers" of white space running throughout the text. Flush right, rag left and centered alignments are suitable for small amounts of type such as headlines, pull quotes, subheads, and captions.



a mess. Typographers likewise build perfectly proportioned a mess. Typographers on demand. The text takes then distort them on demand. The text takes precedence 9.1 THE 1. then distort the design, and the typographic texture of the the purity of the absolute proportions of the pure akes precedence over the absolute proportions of the pure

If, for instance, three lines remain at the end of a chapter If, for instance, a page of their own, the design must flex to king forlorn on a page obvious choices are: (1) run them. The obvious choices are: (1) run them. ommodate them. The obvious choices are: (1) running two the previous spreading pages), which will leave the final page of two pairs of facing pages, which will leave the final page of two pairs of facing pages and dozen of the previous pth of two pairs of the previous spreads, ne line short; (2) running half a dozen of the previous spreads, ne line short; (2) running a dozen lines along to the f ne line snort, (2) tumping a dozen lines along to the final page, ne short, thereby bumping some non-textual element — not page. ne short, thereby our grown non-textual element - perhaps an or (3) reproportioning some non-textual element - perhaps an or (3) reproportioning some non-textual element - perhaps an or (3) reproportion of the sinkage, if any, at the head of the chapter, illustration or the sinkage, if any at the head of the chapter. Spacious chapter heads stand out in a book, as they are means

to. Reproportioning the sinkage is therefore a poor option unless to. Reproportioning the state of it, clearly a greater all chapter heads can be reproportioned to match. And running all chapter neads can on the face of it, clearly a greater evil than six spreads short is, on the face of it, clearly a greater evil than running two spreads long.

If there are only a few pages to the document, the whole thing can, and probably should, be redesigned to fit the text. thing can, and product the text.

But in a book of many pages, widow lines, orphaned subheads, But in a book of filed, 1-8 and the runt ends of chapters or sections are certain to require and the runt ends of chapters. A rigid design that design and the run ches some spreads. A rigid design that demands an reproportioning some spreads in appropriate for reproportioning some invariant page depth is therefore inappropriate for a work of any length. Altering the leading on short pages to preserve a standard depth (vertical justification, it is sometimes called) is not a dard depth (vertex) is not a solution. Neither is stuffing extra space between the paragraphs, solution. Neither is stuffing extra space between the paragraphs. These antics destroy the fabric of the text and thus strike at the

9.1.1 Changes in Inventory It is often said that the Latin aipmaser consists of 20 lette It is often said the Arabic of 28. If you confine yourself to one Greek of 24 and the Arabic window and the dialect in and the Arabic of 24 and the Arabic of 28. If you confine yourself to one Greek of 24 and the Practical window and the dialect in power, and the dialect in power, assertion can hold true. If you include both caps and the dialect in power, this assertion can hold true. If you include both caps and lower and all the rest - the Latin alphabet is not 26 letters long after all; and all the rest - the Lath approach is not 26 letters long after all; it is closer to 600 and able to increase at any time. The alphabet it is closer to 600 and able to classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classicists now use for classical Greek, with its long positive classical Greek, with the classical Greek, with the classical Greek, with the classi it is closer to 600 and auto to increase at any time. The alphabet that classicists now use for classical Greek, with its long parade of that classicists now use for dassical Greek, and a and that classicists now use 101 classical Greek, with its long parade of its classicists now use 101 classical Greek, with its long parade of its classicists now use 101 classical Greek, with its long parade of its classicists now use 101 classical Greek, with its long parade of its classicists now use 101 classical Greek, with its long parade of its classicists now use 101 classical Greek, with its long parade of its classicists now use 101 classical Greek, with its long parade of its classicists now use 101 classical Greek, with its long parade of its classicists now use 101 classical Greek, with its long parade of its classical Greek, with its vowels and diacrines and diacr To the 600-character globalized Latin alphabet, mathemati-To the 600-character Browning Laum aiphabet, mathematicians, grammarians, chemists and even typographers are prone cians, grammarians, chemists and even typographers are prone cians, grammarians, chemists and even typographers are prone cians, grammarians, enemotes and even typographers are prone to make additions: arabic numerals, punctuation, technical symmetric properties and compared from Hebrew, Greek and Cyrilians to make additions: arabic numerals, punctuation, technical symmetric properties and cyrilians to make additions are prone to make additions. Printing enthuto make additions: arabic framerais, punctuation, technical symbols, letters borrowed from Hebrew, Greek and Cyrillic, and, bols, letters browned from invite them, a few types. bols, letters borrowed from Fredrew, Greek and Cyrillic, and, where the letterforms require or invite them, a few typographic where the letterforms as well. There is no hope at this start and alternates as well. where the letteriorms require or mivine them, a few typographic ligatures and alternates as well. There is no hope at this stage of ligatures and alternates of sorts or glyphs precisely but the stage of sorts or glyphs precisely. ligatures and afternates as well. There is no nope at this stage of counting the number of sorts or glyphs precisely, but the total is learly over a mousand.

At the end of the eighteenth century, an English-speaking

At the end of the standard lower case had 54 comparts. At the end of the Cignic Cincily, an English-speaking hand compositor's standard lower case had 54 compartments, hand compositor's standard lower case had 54 compartments. dearly over a thousand.

hand compositors staticated to the case flat 54 compartments, basic ligatures, holding roman or italic a to z, arabic numerals, basic ligatures, holding roman or italic a to z, arabic numerals, basic ligatures, holding roman or mane a to 2, arabic numerals, basic ligatures, spaces and punctuation. The upper case had another 98, conspaces and punctuations. That total of the spaces and analphabetics. That total of the spaces and analphabetics are caps and analphabetics. spaces and punctuation. The apper case nad another 98, containing caps and analphabetics. That total, 98 + 54 = 152, is the taining caps and analphabetics minimum basis. taining caps and anaryman compositor's minimum basic allotment.

English-speaking hand compositor's minimum basic allotment. English-speaking name compositors are minimum pasic allotment.

When more sorts are required, as they very often are, supple-When more sorts are required, as they very often are, supplementary cases are used. Two pair give 304 compartments; three tary cases are used for four pair give 608. This has been the ordinary ty-

siasts sometimes speak of the lay of the case as if it were universal law - but the lay of the case is as localized as the lay of the land. Hand compositors often set not from paired but from single case These have been reduced to as fe as 89 compartments but son times contain 400 or more

LINE LENGTH

66

A man who would letterspace lower case would steal sheep, Frederic

Between 45–75 characters is considered a suitable line length for body copy. 66 characters is ideal for a single column layout. When counting characters, include spaces and punctuation.

Line lengths that are too short or too long will hinder legibility by tiring the readers' eye. A short line length results in an abundance of hyphens.

ONE SPACE AFTER PERIODS

PROPORTIONAL TYPE

I'm obviously a typeomaniac, which is an incurable if not mortal disease. I can't explain it. I just love, I just like looking at type. I just get a total kick out of it: they are my friends. Other people look at bottles of wine or whatever, or, you know, girls' bottoms. I get kicks out of looking at type. It's a little worrying, I admit, but it's a very nerdish thing to do.

MONOSPACE TYPE

I'm obviously a typeomaniac, which is an incurable if not mortal disease. I can't explain it. I just love, I just like looking at type. I just get a total kick out of it: they are my friends. Other people look at bottles of wine or whatever, or, you know, girls' bottoms. I get kicks out of looking at type. It's a little worrying, I admit, but it's a very nerdish thing to do.

Many are in the habit of using two spaces after typing a period at the end of a sentence. This is a relic of the typewriter era when typefaces were monospaced. This is not necessary when using proportional type.

NO SPACES IN STRINGS OF INITIALS

J.R.R. Tolkien Emily G.A. Moody

Strings of initials don't need a full space after each period. Kern initials to sit together well. There will be a full space after the last period.

SMART QUOTES

SMART QUOTES



DITTO MARKS



Do not use ditto marks when your intention is to use quotes—they are not interchangeable. Use smart or typographer's quotes. The same is also true for apostrophes.

Opening double quote: " Option + [

Closing double quote: " Option + Shift + [

Opening single quote: 'Option +]

Closing single quote: 'Option +Shift +]

ITALIC NOT UNDERLINED

CORRECT

Robert Bringhurst

The Elements of Typographic Style

The Garden of Earthly Delights

Hieronymus Bosch

I'm Still In Love With You

Al Green

INCORRECT

Robert Bringhurst

The Elements of Typographic Style

The Garden of Earthly Delights

Hieronymus Bosch

I'm Still In Love With You

Al Green

Underlining type is a relic from the era of the typewriter—there was no method for italicizing type. With the exception of limited web usage, do not underline type for emphasis.

Italicize book titles, periodicals, operas, symphonies, exhibitions, and titles of artwork.

PROPER DASHES

HYPHEN

EN DASH

Six-year-old 770-949-1852

Read pages 12–24 She took the Santa Fe–Chicago flight.

A hyphen is for hyphenating words or line breaks as well as to separate numbers such as phone numbers. An En Dash is used between words that indicate a duration of time or span of space. Use it where you might otherwise use the word "to" or "through". Do not use a full space before or after. You may kern.

EM DASH

She walked away—or rather, ran away—from the crowd.

An em dash is often used in place of a colon or parentheses, or it might indicate and abrupt change in thought, or it may be used in a spot where a period is too strong and a comma is too weak. Some typographers choose to include a space on each side of the em dash, others do not.

There are three types of dashes you need to know. It is your responsibility to put the proper dash in the proper context.

Hyphen - between the zero and the plus sign

En Dash - option + hyphen

Em Dash - shift + option + hyphen

CONSECUTIVE WORDS

Twenty years from now you will be you more disappointed in the things you didn't do than by the ones you did do. Throw off the bowlines. Sail away from the safe harbor. Catch the tradewinds in your sails.

Avoid beginning more than two consecutive line breaks with the same word.

Typographic Rules THE RULES OF TYPOGRAPHY

HYPHENATED LINE BREAKS

✓ Fi-nally✓ Final-ly

Twenty years from now you will be more disappointed in the things you didn't do than by the ones you did do. Throw off the bowlines. Sail away from the safe harbor. Catch the tradewinds in your sails. Explore. Dream. Discover.

When hyphenating words, leave at least two characters behind and take at least three forward. Avoid leaving the stub-end of a hyphenated word as the last line of a paragraph. Avoid more than two consecutive hyphenated lines. Hyphenate proper names only as a last resort.

WIDOWS & ORPHANS

Where does our alphabet come from? We see it every day on signs, billboards, packaging, in books and magazines; in fact, you are looking at it now—the Latin or Roman alphabet, the world's most prolific, most widespread abc. Typography is a relatively recent invention, but to unearth the origins of alphabets, we will need to travel much farther back in time, to an era contemporaneous with the emergence of (agricultural)

civilization itself.

Robert Bringhurst wrote that writing is the solid form of language, the precipitate. But writing is also much more than that, and its origins, its evolution, and the way it is now woven into the fabric of civilizations makes it a truly wonderful story. That story spans some 5,000 years. We'll travel vast distances, meet an emperor, a clever Yorkshire-man, a Phoenician princess

by the name of Jezebel, and the 'purple people'; we'll march across deserts and fertile plains, and sail across oceans. We will begin where civilization began, meander through the Middle Ages, race through the Renaissance, and in doing so discover where our alphabet originated, how and why it evolved, and why, an A looks like an A.

The first or last line of text that is isolated from the rest of the paragraph is called a widow or orphan.

Orphans have no past but they have a future. Widows have a past but no future.

Widow or orphan can also refer to a word left on the last line of a paragraph by itself.

PARAGRAPH SPACING: Two Options

EXTRA SPACE

Where does our alphabet come from? We see it every day on signs, billboards, packaging, in books and magazines; in fact, you are looking at it now—the Latin or Roman alphabet, the world's most prolific, most widespread abc. Typography is a relatively recent invention, but to unearth the origins of alphabets, we will need to travel much farther back in time, to an era contemporaneous with the emergence civilization.

Robert Bringhurst wrote that writing is the solid form of language, the precipitate. But writing is also much more than that, and its origins, its evolution, and the way it is now woven into the fabric of civilizations makes it a truly wonderful story. That story spans some 5,000 years. We'll travel vast distances, meet

INDENT

Where does our alphabet come from? We see it every day on signs, billboards, packaging, in books and magazines; in fact, you are looking at it now—the Latin or Roman alphabet, the world's most prolific, most widespread abc. Typography is a relatively recent invention, but to unearth the origins of alphabets, we will need to travel much farther back in time, to an era contemporaneous with the emergence civilization.

Robert Bringhurst wrote that writing is the solid form of language, the precipitate. But writing is also much more than that, and its origins, its evolution, and the way it is now woven into the fabric of civilizations makes it a truly wonderful story. That story spans some 5,000 years. We'll travel vast distances, meet an emperor, a clever Yorkshire-man, a Phoenician

When indicating a new paragraph there are two options: extra space *or* an indent.

PARAGRAPH SPACING: Extra Space

EXTRA SPACE

Where does our alphabet come from? We see it every day on signs, billboards, packaging, in books and magazines; in fact, you are looking at it now—the Latin or Roman alphabet, the world's most prolific, most widespread abc. Typography is a relatively recent invention, but to unearth the origins of alphabets, we will need to travel much farther back in time, to an era contemporaneous with the emergence civilization.

Robert Bringhurst wrote that writing is the solid form of language, the precipitate. But writing is also much more than that, and its origins, its evolution, and the way it is now woven into the fabric of civilizations makes it a truly wonderful story. That story spans some 5,000 years. We'll travel vast distances, meet an emperor, a clever Yorkshire-man, a Phoenician

Do not use two returns to make the extra space. Use InDesign's "Space Before"/ "Space After" setting to control the spacing using hard and soft returns.

PARAGRAPH SPACING: Indent

INDENT

Where does our alphabet come from? We see it every day on signs, billboards, packaging, in books and magazines; in fact, you are looking at it now—the Latin or Roman alphabet, the world's most prolific, most widespread abc. Typography is a relatively recent invention, but to unearth the origins of alphabets, we will need to travel much farther back in time, to an era contemporaneous with the emergence civilization.

Robert Bringhurst wrote that writing is the solid form of language, the precipitate. But writing is also much more than that, and its origins, its evolution, and the way it is now woven into the fabric of civilizations makes it a truly wonderful story. That story spans some 5,000 years. We'll travel vast distances, meet an emperor, a clever Yorkshire-man, a Phoenician

An indent should be set using the "Tabs" feature in InDesign. The indent should be approximately one em—the same measurement as the type size. Do not indent the first paragraph.

HANG PUNCTUATION

"A man who would letterspace lower case would steal sheep, Frederic Goudy liked to say. If this wisdom needs updating, it is chiefly to add that a woman who would letterspace lower case would steal sheep as well."

"In a badly designed book, the letters mill and stand like starving horses in a field. In a book designed by rote, they sit like stale bread and mutton on the page. In a well-made book, where designer, compositor and printer have all done their jobs, no matter how many thousands of lines and pages, the letters are alive. They dance in their seats. Sometimes they rise and dance in the margins and aisles."

Punctuation should extend into the gutter or margin in order to make the type appear optically aligned. This applies to both display and body copy. Use "story" in InDesign to adjust the settings.

OPTICAL ALIGNMENT

Typography endowing hu with a durab

Typography endowing hu with a durab

Use "story" in InDesign to adjust the settings.

Align the flush edge of display type optically—not mathematically

GLYPHS

2/3 Iguaçu Falls 68° Å

Use "glyphs" in InDesign to access characters that do not appear on the keyboard. You can check to see if a typeface has the characters any task may need in this palette.

SMALL CAPS

REAL SMALL CAPS FAKE SMALL CAPS

If the task calls for small caps, choose a typeface that has them. Do not use the small caps button in InDesign if a typeface does not have these special characters—the software will create *fake* small caps.

NUMBERS

LINING FIGURES

OLD STYLE FIGURES

1234567890

1234567890

1234567890

1234567890

If a document that contains many numbers in the running text, choose a typeface that has Old Style figures. The meld into the text in a seamless manner. Not all typefaces have old style figures.

DISTORTING TYPE

Stretch & Squish

Never distort a typeface. If you need a letterforms of a different proportion, choose a different typeface. If you choose to customize a typeface for a particular use, do so with sensitivity to the original forms.



Composition THE RULES OF TYPOGRAPHY

> phases are, the limited number of mechanisms of separation they offer may lead to less than optimum separations in some cases and complete lack of resolution of important peak pairs in others. ACE columns have led the way in offering C18 bonded phases with the advantage of extra selectivity. C18-AR and C18-PFP bonded phases have proved to be extremely powerful in leveraging selectivity to achieve separations not possible with C18 bonded phases. They aren't meant to supplant C18 bonded phases, but rather complement

them in providing additional mechanisms of separation that can be

used to achieve better overall chromatographic results. It is fitting,

then, that C18, C18-AR and C18-PFP bonded phases will be the first phases available as ACE Excel UHPLC columns. Additional bonded

CLARITY

All the well known advantages of ACE HPLC columns are now available in UHPLC columns ACE Advantages Excellent peak shape for basic and acidic compounds It is well known that even small amounts of unwanted and uncontrolled secondary interactions can cause unacceptable peak tailing Unsurpassed column-to-column reproducibility and poor column-to-column reproducibility. However, recognizing the Rugged and reliable day-to-day performance and exceptional problem and correcting it are two very different things. ACE columns column lifetime have a well deserved reputation for delivering excellent peak shape, even for problematic basic compounds. ACE HPLC columns, and now ACE Excel UHPLC columns, are manu-FIGURE 2: ACE Excel delivers excellent peak shape factured using a proprietary process to produce ultra-inert stationary Conditions USP Tailing Factor phases that yield the excellent peak shape for basic and acidic Columns: ACE Excel C18, 2 µm, 2.1 x 100 mm Analyte ACE Excel Acquity BEH compounds for which ACE columns are so well known. This process Acquity BEH C18, 1.7 µm, 2.1 x 100 mm Aspartame Mobile Phase: 5% B to 100% B in 8.7 minutes Cortisone starts with the production of ultra-pure, ultra-inert silica stationary phase supports and continues with an advanced bonding technology A = Water + 0.05% TFA Amitriptyline 1.68 B = Acetonitrile + 0.05% TFA Flow Rate: 0.5 mL/min that yields a densely-bonded stationary phase. Column Temperature: 45°C Leverage the power of bonded phase selectivity and combine Instrument: Waters Acquity UPLC it with UHPLC efficiency and speed C18 bonded phases are the most popular for HPLC/UHPLC because they offer good retention and selectivity for a wide variety of sample ACE Excel C18 Acquity BEH C18 1.7µm types. In addition, they are perceived to be more rugged and reliable than other bonded phases. However, C18 bonded phases depend only on hydrophobic binding interaction, and occasionally shape selectivity, to achieve satisfactory separations. As versatile as C18

As with ACE HPLC columns, ACE Excel UHPLC columns deliver excellent peak shape

for basic and acidic compounds. In this example, the ACE Excel C18 UHPLC column

provided superior neak shape compared to the Waters REH C18 column

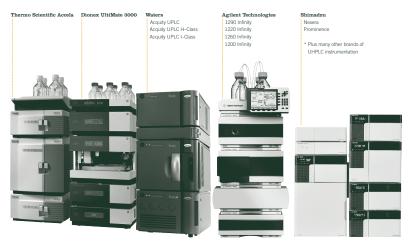
Fully compatible with all commercial UPLC and **UHPLC** instruments

ACE Excel UHPLC columns are designed to be fully compatible with all commercial UPLC or UHPLC instruments and engineered to benefit from the high flow rate, ultra-high pressure and low dispersion of these systems. ACF Excel columns provide chromatographers with more column choices so that even more value can be obtained from their UPI C/UHPI C instruments.

ACE Excel UHPLC columns are compatible with:

- Waters Acquity UPLC, Acquity UPLC H-Class, Acquity UPLC I-Class
- Agilent 1290 Infinity, 1220 Infinity, 1260 Infinity, 1200 Infinity
- Thermo Scientific Accela · Shimadzu Nexera, Prominence
- Dionex UltiMate 3000
- · Plus many other brands of UHPLC instrumentation

FIGURE 3: ACE Excel UHPLC columns are compatible with all commercial UPLC and UHPLC instrumer



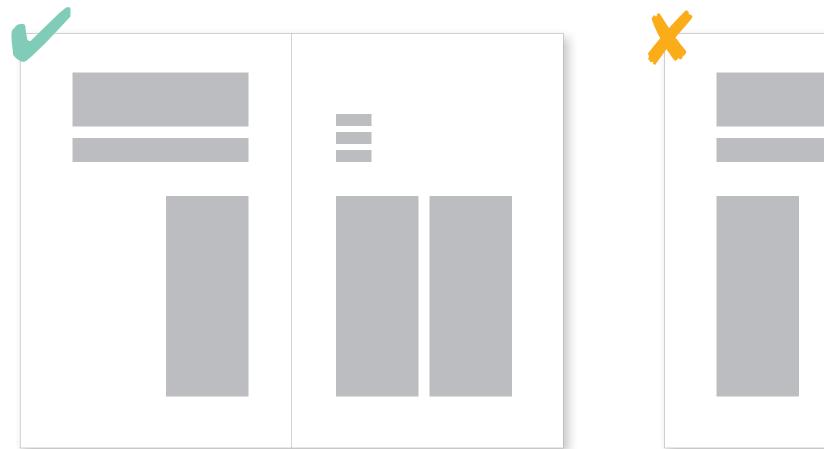
Be certain the typography is communicating the order and structure of the content. Make connections between type and corresponding graphics clear to the reader.

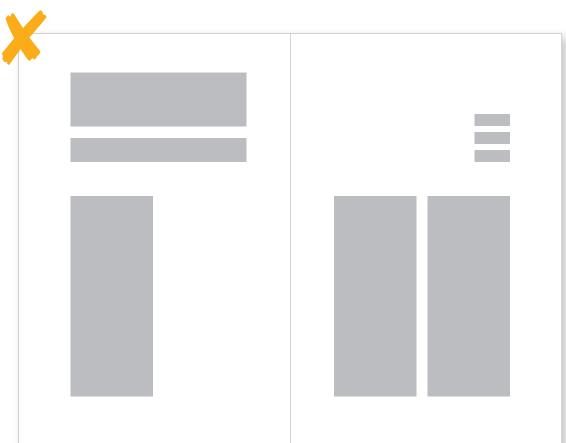
phases will follow shortly.

THE RULES OF TYPOGRAPHY

Composition

WHITE SPACE





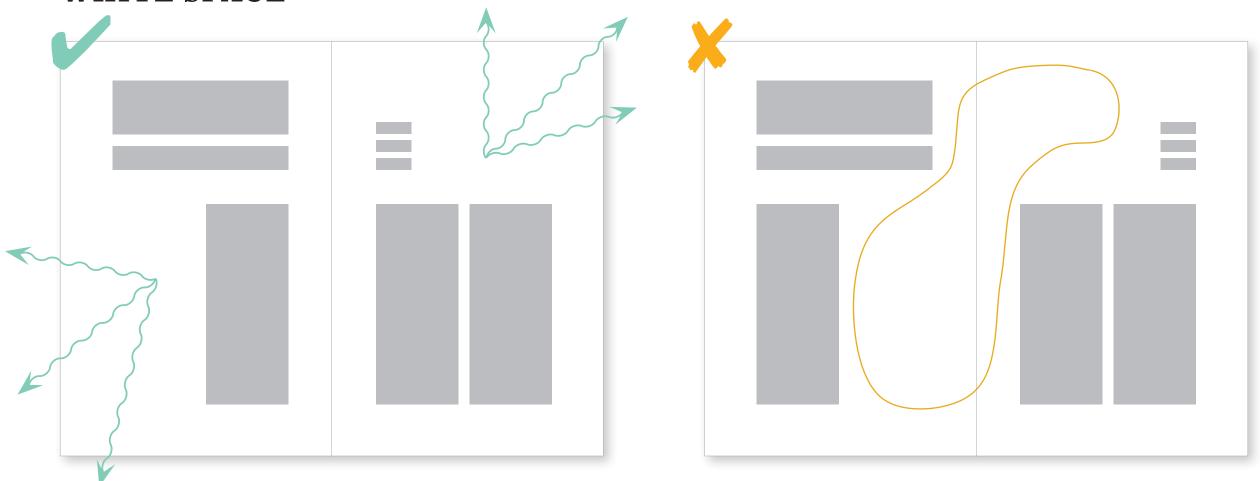
Be mindful of the white space on the page—it is an active element and should be regarded as such.

Avoid trapping "bubbles" of negative space in your layout.

THE RULES OF TYPOGRAPHY

Composition

WHITE SPACE



Be mindful of the white space on the page—it is an active element and should be regarded as such.

Avoid trapping "bubbles" of negative space in your layout.

THE RULES OF TYPOGRAPHY Composition

TYPE FIRST

The layout bends to the type.

Once you have established the ideal size for your body copy, adjust your layout to support it—do not scale the type as a solution. The type has rules by which it needs to abide, other compositional elements are less rigid.

