The National College of Art and Design

The Apple Macintosh:

Its effect on Graphic Design and the Graphic Designer
(Illustrations)

A thesis submitted to

the Faculty of History of Art and Design and Complementary Studies

and

in Candidacy for the Degree

Faculty of Design
Department of Visual Communication

by
Gary Campbell
March 1990

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List of Illustrations

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Fig.1 Advertisement for the Apple Macintosh
This advertisement occupied two pages of an English Sunday paper supplement. This signifies the 'universality' of the attitude towards selling at Apple Computer Inc. Stylishly photographed, it has a late 1980s 'yuppie' look; it does not show the product it is selling, preferring instead to show us the reason for its already worldwide success - the hand and the mouse.

Fig.2 The Mouse. The mouse is an ergonomically designed unit, which when moved on a flat surface moves the cursor on screen. The button can be used to select menus, files tools, etc.
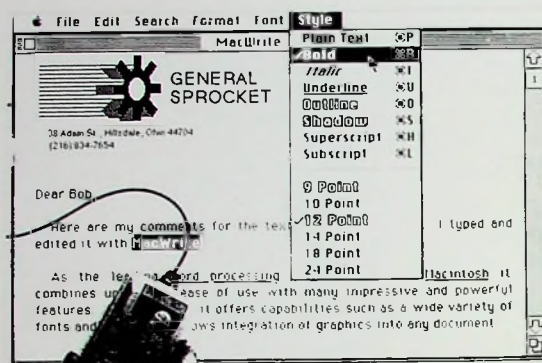
Fig.3(a) Macintosh screen showing 'Style Menu.'
The 'Style' menu offers such options as 'plain', 'bold', 'italic',etc. In this instance, the operator has selected the word 'MacWrite' (reversed white out of black on screen), and has chosen 'bold' from the 'style' menu. The tick beside '12 point' denotes the size of the word 'MacWrite'.
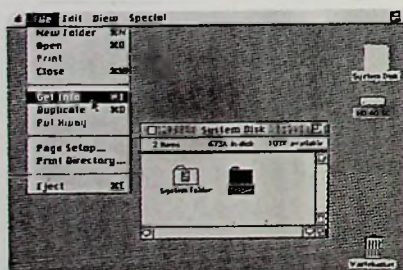
Fig.3(b) Macintosh screen showing 'File' menu. 'Folder' has been selected, and from the 'File' menu, 'get info...' has been selected, meaning that the operator simply wants to find out information about the system folder.
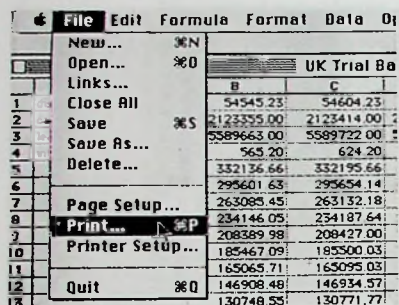
Fig.3(c) Macintosh screen showing how 'shortcuts' can be achieved. By selecting 'Print...', the screen will show the user a chart of print options such as size, page nos., no. of copies etc. The control symbol followed by a letter (P) means that 'Print...' can be selected on the keyboard.

Fig.3(d) Icons (Wastebasket and Clock).
These symbols (known as 'icons') are instrumental in the 'user-friendliness' of the Macintosh. The bulging waste-paper basket means you've successfully discarded something, e.g. an unwanted document, and the animated wristwatch means that you have to wait a little while.

4 Time chronology (should be already typed in) This is the chronology to use as reference material in thesis - to provide reader with a quick overview -

B.C.

8	Aboriginal petoglyphs in Australia
3,100	Earliest known Egyptian hieroglyphics combining pictures and symbols
2,500	Egyptians invent papyrus (from reeds) and hieratic (cursive script) to write on it
450	Carrier pigeons used for fast communications between city-states.
256	Chinese invent paintbrushes made of hair
100	Rome has flourishing book industry, libraries, e.t.c.

A.D.

150	Books of folded parchment begin replacing scrolls
600	Paper making spreads from China to Korea, Japan and Persia
1034	Pi Shang invents movable type made of baked clay
1221	Chinese develop movable type made up of wood blocks
1390	Printing type made of bronze ordered by Korean emperor Tsai-Tsung.
1418	First European example of xylograrphy (block printing from wood engraving)
1445	Chinese develop copper type
1455	Gutenburg's 42 line Bible is first book printed from movable type
1470	Nicolas Jenson produces "Jenson", the first Roman type face, in Venice
1540	Claude Garamond, French printer and punch cutter introduces "Garamond" typeface
1710	Jacob Christoph Le Blon, German engraver, invents three - colour engraving
1791	First amendment to U.S. constitution guarantees freedom of press
1822	William Clarke makes first type composing machine
1849	Telegraph message "Eureka" from Sutter's mill in California sets off gold rush
1876	Alexander Graham Bell invents the telephone, transmitting t he words; 'Mr. Watson, come here, I want you!'
1886	Pica measuring system adopted in English speaking coun-

tries

1895	William Friese-Green gained a patent for a phototypeset ting Light was shone on white characters on black
1904	Offset printing invented
1915	Alexander Graham Bell speaks with Thomas A. Watson by transcontinental telephone
1928	John Tschiehold published "Die Neue Typographie" (ad hered strictly to functionality)
1930	Four colour offset press invented
1933	Phototypesetter invented
1944	John Logie - Baird invented the T.V.
1949	"Rotofoto"- the first phototypeset publication to be pro duced in Europe an a keyboard system in the L.C.P.
1954	Monotype's monophoto typesetting equipment intro duced and Merganthaler - Linotype Linofilm typesetting machine introduced
1961	Letraset dry transfer lettering introduced
1961	Lasers invented
1961	I.B.M. golf ball typewriter introduced
1963	Early use of the term 'computer - controlled typesetting' occurred
1964	Word processing' coined as a new technical term in the English language by I.B.M.
1964	First application of mouse as printing device
1968	First digital typesetting machine- Linotron 1010
1969	I.B.M. coined the description 'Media Industry' for activi ties involved with communications, whether electronic, oral, or paper based
1972	Personal computer concept and name comes into use
1974	Laser reproduction introduced
1975	ECRM inc. announce the innovative Autokon 8400 Input hard copy consisted of line art and continuous tone photographs which were scanned and recorded on photo sensitive material
1977	Laser typesetting machine introduced
1980	Laserwriter introduced
1981	Bitstream, inc., - formed - provided fonts as bit-maps and in outline coding for a variety of low and high resolution imaging devices
1982	Can LBP-CX electronic printer introduced, with a rated speed of eight pages per minute, a resolution of 360 d.p.i., a laser diode for imaging, a table top design and a cartridge for toner.
1984	Apple Macintosh introduced

Fig.5 handwriting at the time of Gutenberg. The similarity of the hand-
work(writing) and presswork (printing) is demonstrated by these two pag-
es. On the left is a page from the 'Giant Bible of Mainz'. On the right is a
page from the Gutenberg bible.
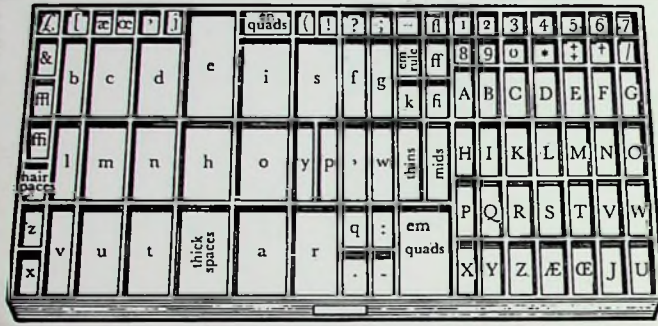
Fig.6 illustrations showing how the language used in letterpress is derived.
6(a) Typical typecase. This typecase shows the particular place for each in-
dividual letter. The small letters (lower-case) are stored on the left, and
the capitals(upper-case) are stored on the right.
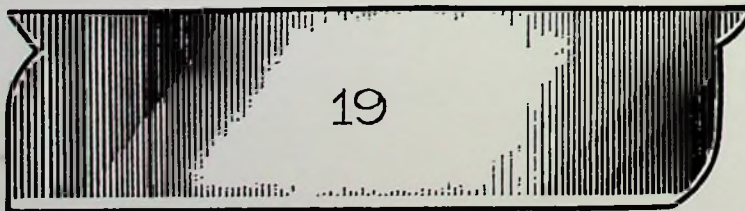
Fig.6(b) A 19 em lead. 'Leads' are placed in between lines of type, to sep-
arate them and add space. They were lower in height than the letters
themselves and so did not print. These leads give rise to the term leading,
still used in computer and digital typesetting systems

7

N baegn
baegn

abcdefghijklmnopqrstuvw
ABCDEFGHIJKLMNOI
1234567890 ß &?!£$(.,;:)

E1 a Ea1 I
60pt 12.6mm 60pt 12.6mm 42pt 9.1mm 3
IL1755 IL1756 IL1759 I

Eal Eal
12pt 2.8mm 10pt 2.3mm
IL1765 IL1766

abcdee fghijk klmm nopqq rs
A ABBCCDDEEFFGG
RRSTTUVUWXYZ
1234567890 æøß asctet frgyijisll.

E I a E I
60pt 13.4mm 60pt 13.4mm 48pt 10.6mm
LG2212 LG2213 LG2214

.Fig.7(a) A comparison between old and new versions of Garamond

ABCDEFGHIJ
KLMNOPQRSTUV
WXYZ
abcdefghijklmnopqr
stuvwxyz
ROMAN & *ITALIC*
Engraved
by
William Caslon
ABCDEFGHIJ
KLMNOPQRSTU
VWXYZ
ABCDEGFKM
NPQRTY
abcdefghijklmnopqrstu
vwxyz

abcdefghijklmnopqrstuv
ABCDEFGHIJKLMN
1234567890 &?!.,;:

E1 a Ea1 Eal E
48pt 13mm 48pt 13mm 36pt 9.5mm 24pt 6mm 18
IL7700 IL7701 IL7702 IL7703 IL7

abcdefghijklmnopqrstuvwx
ABCDEFGHIJKLMN
1234567890 ß &?!£$(.,;:)

E1 *a1* *Ea.*
72pt 19.4mm 72pt 19.4mm 48pt 13mm
IL4340 IL4341 IL4342

Fig.7(b) A comparison between old and new versions of Caslon

8

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyzæœffffifffffiffl
&ÆŒ£1234567890.,;:-!?''()
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyzææœffffifffffiffl
&ÆŒ£1234567890.,;:-!?''()

30pt Monotype 270 Bembo

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 æøßÆØ &?!£$%(.,;:)

E1 | **a1** | **Ea1** | Ea1 | Ea1

60pt 12.6mm
IL4053

60pt 12.6mm
IL4054

48pt 9.9mm
IL4055

36pt 7.4mm
IL4056

24pt 4.9mm
IL4057

Fig. 7(c) A comparison between old and new versions of Bembo
The differences between the oldest and the newest versions of some of the
standard typefaces is often very noticeable as can be seen here. The pro-
cess of adapting a typeface to each new technology as it appears can make
a typeface almost completely unrecognizable.

RQEN
baegn
baegn
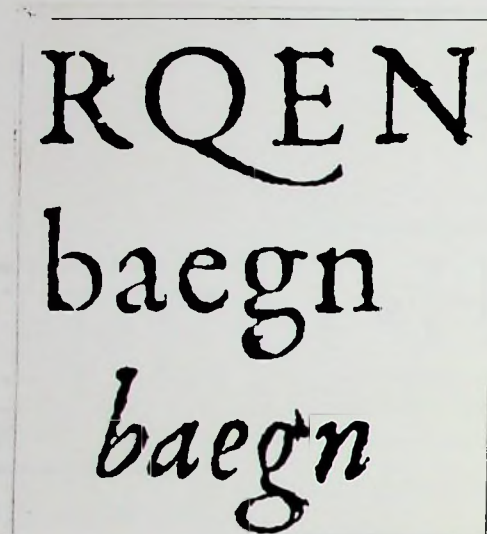
Fig.7(d)(i) Enlargement of Garamond (1450s) from 30pt.

RQEN
baegn
baegn
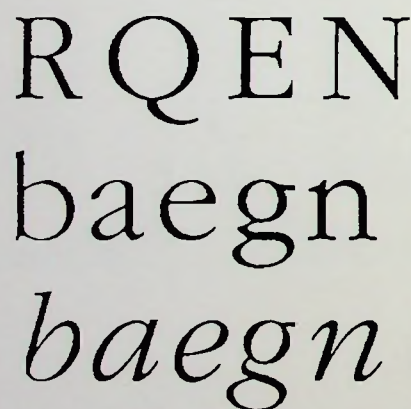
Fig.7(d)(ii) Enlargement of Garamond (1984) from 30pt. Fig.7(d)(ii) was
output at 30pt from a 300 dpi laser printer and then enlarged photo-
graphically. Apart from the difference in the quality of the outlines(which
illustrate the different techniques used to produce the letterforms), the
actual shapes of the letters have changed dramatically during the centu-
ries which separate them.

Fig.8(a) Photograph showing on-screen resolution
Fig.8(b) Actual printout of same copy
Despite Apple's insistent claims to the contrary, there is a considerable dif-
ference in the appearance of type on a monitor and the same type print-
ed on a laserprinter, as can be seen here. Adobe have recently introduced
a product called 'Type Manager' which considerably 'smoothens' the type
minimizing the difference between the two.

Select a progressive color:

Hue	0
Saturation	65535
Brightness	65535
Red	65535
Green	0
Blue	0

Cancel   OK
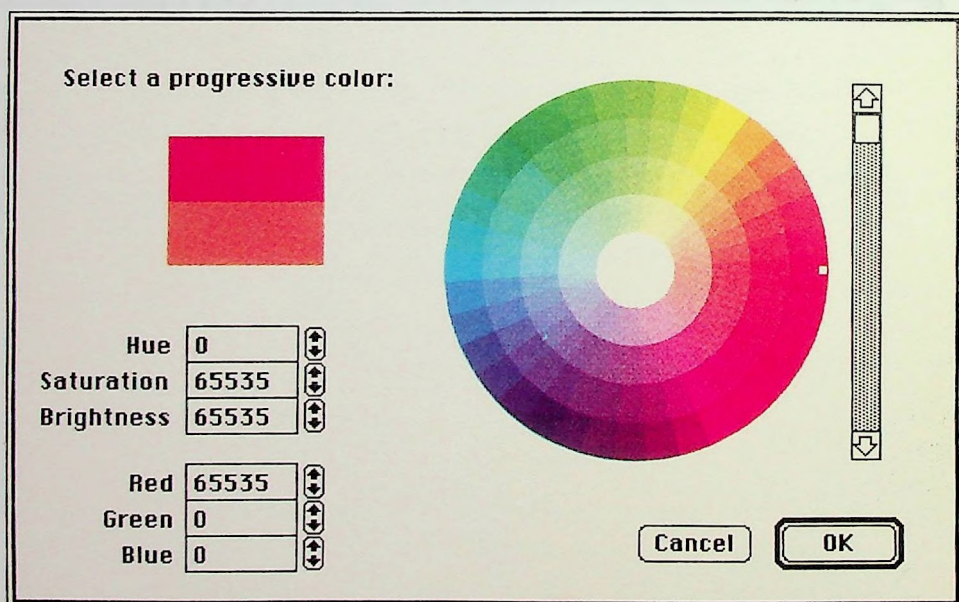
Fig.9 Monitor showing how colour can be specified and controlled.
Colour can be specified in a number of different ways, including Pantone
colour, process colour, spot, tint, edit colour, hue, saturation & bright-
ness(HSB), and red, green, and blue (RGB). Combinations of these dif-
ferent ways of producing colour on screen can be used, and when separa-
tions are required, they can all be converted to combinations of the four
process colours (cyan, yellow, magenta, and black)

12

File Edit Search Format Font Style Spelling

colin's thesis, III

Colin's Thesis

6 lines/inch

designed typefaces will literally make itself felt, then, perhaps, appreciation

for the typefaces of the 16th and 17th centuries will grow, as is currently happening

Spelling

Word:

⌘1
⌘2
⌘3
⌘4
⌘5
⌘6

OK

Check ⌘C
Skip ⌘S
Learn ⌘L
Cancel ⌘.

Replace/Skip All

Status: Finished Spelling

0% [▒▒▒▒▒▒▒▒▒▒▒▒] 100%

2501 Words Checked
0000 Flagged
0000 Replaced   v2.0

Fig.10 Monitor showing how spellchecker works.
By selecting 'Check Document...', the entire contents of the MacWrite
document will be checked for spelling mistakes. 'Questionable' words are
'flagged' and suggestions are made for the correct word. Words can be re-
placed or ignored or the Mac can be instructed to 'learn' specific unusual
words.

N I C K   B A M F O R T H   AUTHOR OF THE HEALER WITHIN [AN

EX, SPIRITUALITY & H

I have been HIV positive for many years and I have never felt to be in better health. I am also a spiritual healer and teacher, and my sexual nature is an integral part of the work I do and the lessons I continue to learn. Without my sexual expression, there is no way that I could be an effective healer or teacher, as no-one can bring the spiritual energy on to this physical plane without truly exploring the depths of his or her sexual being.

I must say that I am beginning to get a little bored of these "squeeky clean" new age teachers who say that all will be well if only you learn to love yourself. Of course, learning to love yourself and others unconditionally is a very important step towards healing yourself, but this is only the apex of the pyramid. If only it were that simple! I am sure that most of you that read this will have been through a pretty intense last few years. A period of time during which you may have experienced immense inner changes. Learning that you are HIV+ is, for most people an enormous shock whether you have symptoms or not. This pain and fear, however, need not lead to illness and death. It can trigger a major and wonderful transformation in your life.

During the many years that I have worked with people who have AIDS or are HIV+, especially during the past two years, I have seen again and again people who have risen above all the negative crap about HIV and AIDS which one reads in the press and have literally taken their lives into their own hands. Without exception, in my experience, the people with HIV or AIDS who over the longtime have lived normal, healthy lives are those who used their diagnoses to create change with in their lives. If you are faced with a life-threatening disease, you have a very simple choice, either you put your health into the hands of a doctor and wait for a cure or you can go deep within yourself to bri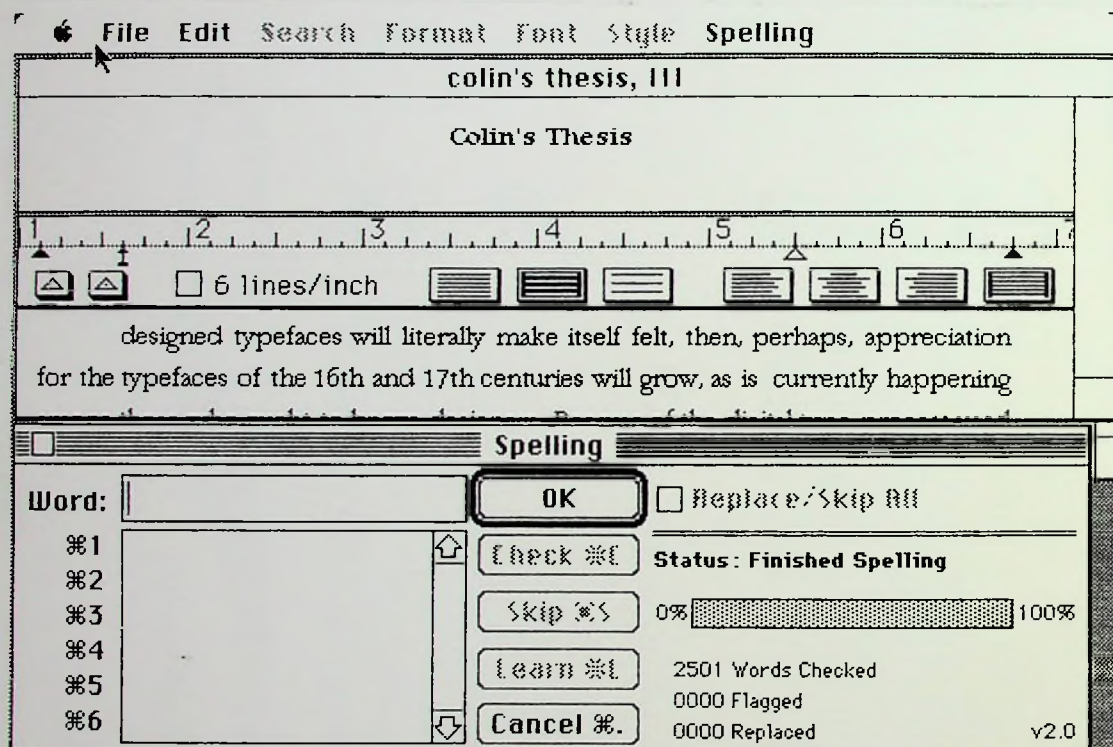ng a balance and health into your own being. Understanding the sexual part of your nature is one of the most important steps in this direction. Needless to say, sex especially gay sex has had rather a bad rap recently. One thing I want to make clear is that sex in itself has very little to do with AIDS. Sure, it has been the means of transmission of HIV for many of us but it is important not to confuse the physical transmission of semen from one person to another with what sex and sexuality really signifies. We human beings are not purely animal and therefore, sex does not simply serve a biological function. We are creatures of consciousness and sexuality is a major part of this.

Sex in its highest form is the most wonderful expression of love and intimacy open to us. Do not forget this. We are physical beings and be ings of spirit, and sex as an expression of love is the ultimate fusion of

these seemingly distinct aspects of ourselves. I do not need to tell you of the incomparable feeling that overwhelms your whole being during those moments when it all comes together with the right person. The exchange of such energies penetrates the heart centre, which, in the physical sense, is the location of the thymus gland. This gland, still barely understood by modern western science, is believed by many to be the focal point of the immune system. On the other hand we have all, at some point, had sex which has left us drained and unfulfilled. What most people fail to understand is that sex is not just a physical exchange. It is the exchange of energies which go far deeper than mere physical action and which have an even greater bearing on the health and balance within our bodies. What we put into a sexual encounter is a reflection of our needs and our emotional state. Often we attract, as our partner, someone who is giving off a similar energy, which will then feed that energy within ourselves.

your sexual impulses will help you get closer to the true core of your being

Just for a moment, think about the motivations and real emotions will lie behind sex for you. Be perfectly honest with yourself and mark below those which apply to you. (You may add others if you wish). Sex is, an expression of love for one particular person, a way of overcoming loniness, of filling a void, a need within yourself, an adventure, the thrill of a new encounter, a way of releasing pent up energy and tension, a means of escape from the day to day reality of life; a means of exerting power or control over someone or of losing control to someone; a way of proving your own self worth, your own attractiveness

All I want is for you to be aware of what sex has meant to you in the past, what it means now and what you want it to mean. Such awareness can lead you toward a greater understanding of your emotional needs Throughout all the inner turmoil you have gone through recently, you cannot have failed to control a lot of emotional 'excess baggage' which you carried around

12

13

Fig.11 Condensed and stretched type

This headline contains many examples of type which have been stretched or condensed. Such a distortion of type can often yield unaesthetic results. The word 'SPIRITUALITY' has been extended vertically and thus the delicate balance between the thick and thin strokes of the letters has been destroyed. For example, the crossbars on the 'T's are now much thicker than the down strokes, resulting in a top-heavy feel to the letters.
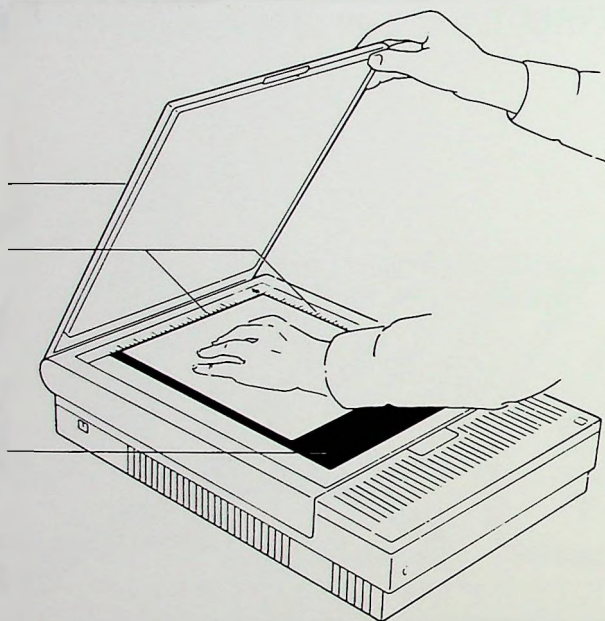
Fig.12 A Macintosh scanner with an item being scanned.
The object is placed face-down on the glass and the lid is closed. The scanning mechanism moves the object and immediately shows the scanned object on the monitor.
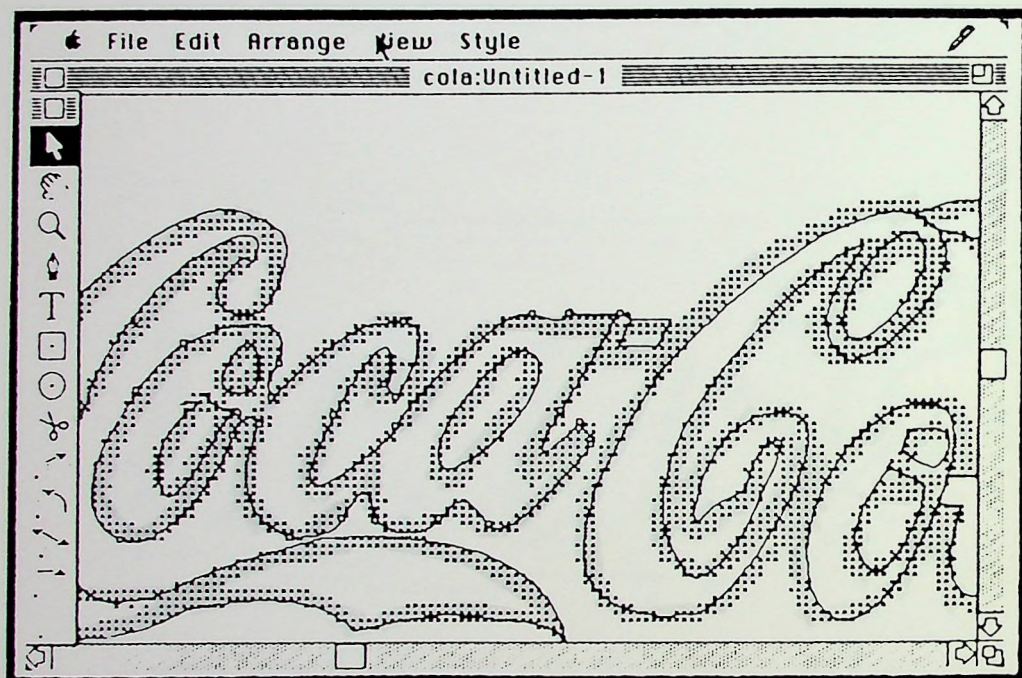
Fig.13 Tracing a scanned image

The grey pixels denote the scanned image and the black lines denote the
traced image. The scanned image can be treated as a template and separated from the traced image. The subtle curves of an image such as this
can be extremely finely controlled and continuously adjusted until the desirable result is achieved.

Fig.14 Bezier curves (examples).
When a curve is drawn it is automatically equipped with straight lines tangential to one of its points. The amount of curvature is controlled by 'dragging' the ends of these straight lines. The more complex the curve, the more controllable points it will have, and the more flexible it will be.

As the lea_ing _ord
combines u_ _eas
features. ____
fonts and_ _ _ _

Fig.15 A hand on a mouse.

MAK*i*NG *your*

GEOFF   COOLING
&
MARK   WHELAN

IT IS COMMON SENSE THAT YOU PLAY A PART IN KEEPING YOURSELF HEALTHY. WE HAVE LISTED BELOW ARE SOME POINTS TO CONSIDER

CATCHING INFECTIONS EARLY If your immune system is damaged, it is important to report any illness to your doctor as soon as possible. This is because infections can be treated much more effectively if they are caught early. Note that a person with AIDS is not at risk of dying from the common cold or other minor infections, but even so let your doctor know when you are feeling unwell so that he can make sure it is nothing serious.

REST Fatigue is a very common symptom experienced by people with AIDS. The tiredness may come and go, and you may feel quite well for varying periods of time. Loss of energy and ambition, as well as drowsiness, are often quite difficult to recognize as tiredness caused by the virus or depression. In any event, if you are feeling tired, pay attention to what your body is telling you as much as possible.

If you are accustomed to going out at weekends, staying up late, or dancing till the early hours, tou may wish to cut down so that you can get more rest. When you decide how much rest you require, make your friends aware that your health comes first and you need to stick to your schedule of sleep.

EXERCISE Exercise is a good way of reducing anxiety, tension and depression. Regular exercise, from a physical point of view, is necessary for maintaining a good level of fitness. If you have not been in the habit of exercising, begin slowly, perhaps with regular walking or swimming.

WEIGHT LOSS Weight loss may be a direct result of the virus for people with HIV or AIDS, or of particular infections which inhibit the proper absorption of food in the
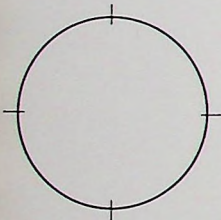
HEALTH *your* AIM

DR. LUC MONTAGNIER, THE MAN WHO DISCOVERED HIV, INSISTENTLY STATES THAT "AIDS DOES NO TABLY LEAD TO DEATH, ESPECIALLY IF YOU SUPPRESS THE COFACTORS THAT SUPPORT THE DISE/ SIMPLY ISN'T TRUE THAT THE VIRUS IS ONE HUNDRED PERCENT FATAL. IF YOU SLEEP REGULARLY ALCOHOL, COFFEE & TOBACCO, YOUR IMMUNE SYSTEM COULD RESIST THE DISEASE"

stomach. Weight loss can also be a result of anxiety, perhaps brought on by a loss of appetite. Because of these problems, give special attention to your diet, so that you can counter weight loss.

DIET Eating well balanced meals is important for people whose immune system is under threat. If you have been hospitalised try to eat well when you go home so you can get your strength back and gain weight. If you find your appetite is poor and large meals are difficult, eat small nourishing snacks with a high calorie content every two or three hours through out the day. This will help you to regain any weight loss and keep it. Eat a variety of foods every day from these groups;

BREADS AND CEREALS Eat plenty of these! Choose high fibre varieties such as whol emeal bread, biscuits and crackers. Include cereals like porridge, Weetabix, Shredded Wheat, as well as wholemeal pasta and brown rice.

FRUIT AND VEGETABLES Eat at least two or three pieces of fruit and at least one salad daily.

FATS Butter or margerine can be added to vegetables or bread to increase calories.

PROTEINS Try to eat more chicken and fish than red meat. Take every precaution when preparing chicken- it may contain salmonella, which can spread to other foods through knives or work surfaces. Ensure that it is thoroughly cooked. Eggs are handy for a quick, light snack they can be easily added to drinks, like eggnog or to soups, sauces or mashed potatoes.

DAIRY FOODS Eat plenty of milk, cheese and yogurt. Try to drink a pint of milk a day. Use milk in drinks, puddings, soups and sauces. Add cheese to soups, sauces and

potatoes. Cheese and biscuits make a high calori energy snack. Yogurts are useful either as a des snack, and plain yogurt can be added to soups or st Sometimes, you may be unable to eat certain foo have special nuritional needs, particularly if yo lost your appetite, weight loss or diarrhoea. Discu diet with your doctor and dietician and let them k you have lost weight. If you are suffeing from loss then it is possible to obtain food supplements are easily absorbed into the body. These are avail prescription from the dietician. You can up milky with these supplements (for example *Complan* , *mel*, or *Build Up*) Drinks made with fruit in a lic can be quite a tasty refreshment.

Prevention of thrush is important with regard to loss, even a small patch can cause difficulty in ea compromise food absorption.

VITAMINS Vitamin supplements are no substituti adequate diet. It has not yet been proven whether vitamins actually help you fight the virus. Do ren however that excessive doses of some vitamins, : A and D, can be dangerous.

RECREATIONAL DRUGS It is important to remem qith all recreational drugs , such as alcohol and ettes, can compromise the immune system. Alth may be hard to give up, the less you take, the l will damage your immune system. If you inject d member that a dirty needle can lead to septicemia cesses. Try to cut down on recreational drugs, an sure you eat well and get exercise regularily. Moc is the key word- try not to overdo things.

Fig.16 (a)Example of the subordination of function to form in desk-top-publishing.

Fig.17(a) Neville Brody experimenting with LetraStudio. This piece was
produced by London designer, Neville Brody, in order to illustrate the ca-
pabilities of a Macintosh type-distortion program, LetraStudio. It is a typo-
graphic illustration, obviously produced without very much thought, but
as a way of coming to grips with the program, and it does not pretend to
be anything more. However, its use of colour is quite unusual, and it
works well in the context for which it was intended.

Fig.17(b) Neville Brody's ad for Letrastudio
In this, a similar example, Brody has used the tools of Letrastudio to did-
tort the photographic image in an unexpected way. It is obvious that both
17(a) and 17 (b) were produced by the same programme.
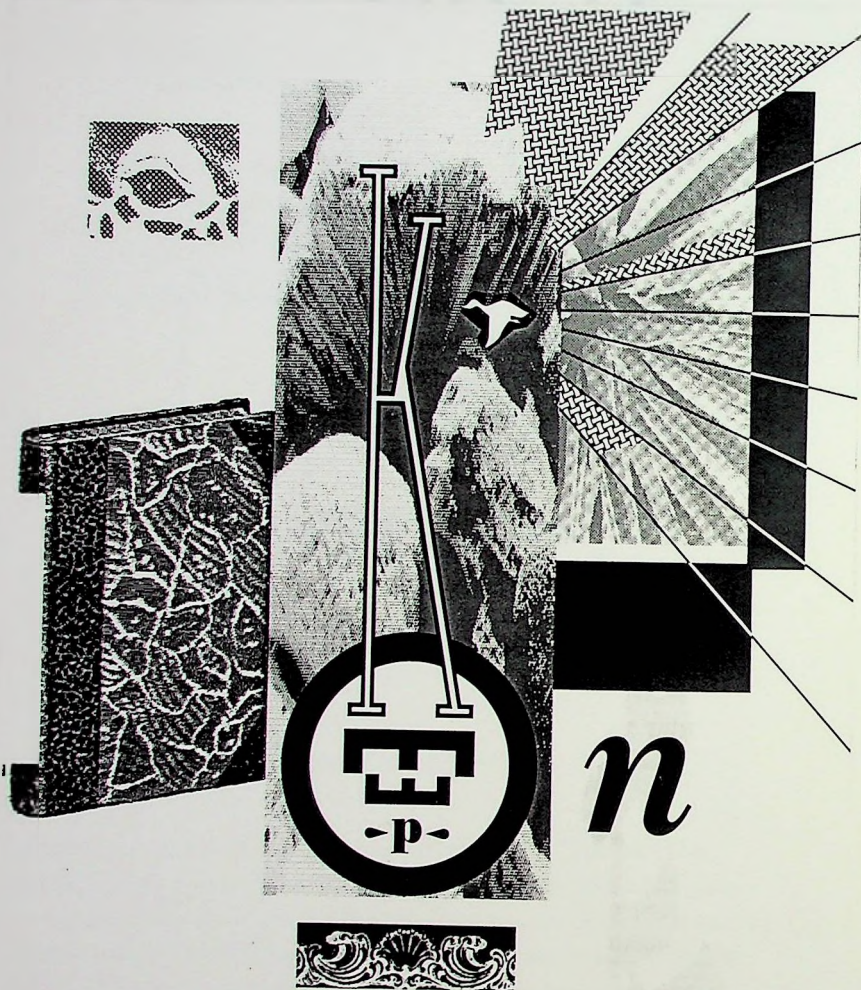
Fig.18(a) A page for Emigré magazine produced by John Weber

KEEP *

on re

ly. 2. made or used for reading. n. 1. the
or practice of a person who reads; perusal,
f books. 2. ... ud the
ds of printi ... pecially
public ente ... y of books;
demic learn ... d or
tten to be re ... rma-
i by figures ... ter,
rmometer, etc. in a particular edition of a
rary work as there were several *readings* for
passage. 7. a particular interpretation, as of
ething written

read ... g.

a general word of broad
application, in its
simplest sense implies
merely a continuing
...ave...d;

ng

✳ see also **celebrate.**

Fig.18(b) A page for Emigré magazine produced by Glenn Suokko
The theme and title of these two is 'Keep on Reading'. These two images
were produced by designers for Emigré magazine, and inserted at regular
intervals as full page illustrations. The use of type and image in both is
playful, 18(b) appearing to be the both more preconceived and re-
strained. they both us scanned images which have been subsequently bit-
mapped. Weber has overlayed pattern and type an images, stretching the
words to the limits of their legibility, while Suokko has used a dictionary
idea and has introduced a sense of mystery through the use of white type
continuing on to the white background in the lower half of the illustra-
tion. 18(a) could be said to have some stylistic similarities. The typograph-
ic approach (especially in the case of the word 'reading' in fig.18(a) ap-
pears to be similar. The aesthetic value or appeal of either fig.16 or fig.
18(a) may be regarded as a mater of taste but the different contexts of
these two examples should be considered; only then can the appropriate-
ness of each be judged.

Fig.19 Curved and slanted type.

Fig.20 Special effects available from phototypesetting.

This is an example of geneva
set in twelve point with auto-
matic leading or line spacing.
this is an example of geneva
set in twelve point with auto-
matic leading or line spacing-
this is an example of geneva
set in twelve point with auto-
matic leading or line this is an
example of geneva set in
twelve point with automatic
leading or line spacing this is
an example of geneva set in
twelve point with automatic
leading or line spacing.

ABCDEFGH

KLMNOPQR

TUVWXYZ

Fig.21 Geneva set 12/12 and alphabet (72point)
Fig.21(a) Here a bit-map version had to be created fore the printer since
Geneva is not usually printed out on RSG.

This an example of Geneva twelve point as output from MacWrite.The resolution from a LaserWriter printer is smoother than when output from RSG. This an example of Geneva twelve point as output from MacWrite.The resolution from a LaserWriter printer is smoother than when output from RSG. This an example of Geneva twelve point as output from MacWrite.The resolution from a LaserWriter printer is smoother than when output from RSG. This an example of Geneva twelve point as output from MacWrite.The resolution from a LaserWriter printer is smoother than when output from RSG.

Geneva 18 point in MacWrite
Geneva 24 point

Fig.21(b) Output is smooth from MAcWrite since in this program, Geneva is the most common typeface used for outputting

Garamond Italic and Geneva *combination*

Fig. 22 Garamond Italic and Geneva (combination)

some type scrolled
and some not scrolled

Fig. 23 Type - some scrolled, some not scrolled, etc.

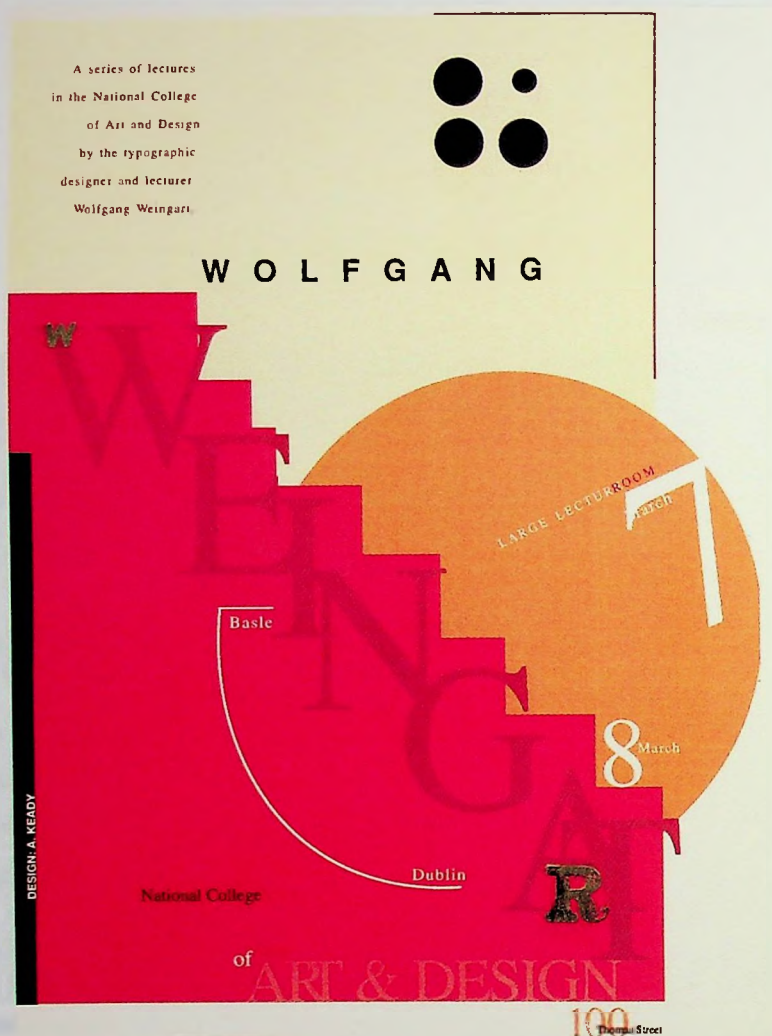# Adobex

Fig. 24 (a) Adobex logotype.

Fig.24(b) Wolfgang Weingart poster.
The word 'WEINGART' was originally set in helvetica black condensed on
one machine. It was transferred to another machine in order to get a col-
our printiout. The second computer did not have the typeface Helvetica
Black in its system and so the word 'WEINGART' was automatically
changed to Times Roman, thereby changing the size of th eindividual let-
ters. The 'R'was added by letterpress, inspiring the designer to develop
the combination of Mac and letterpress technologies in the future.
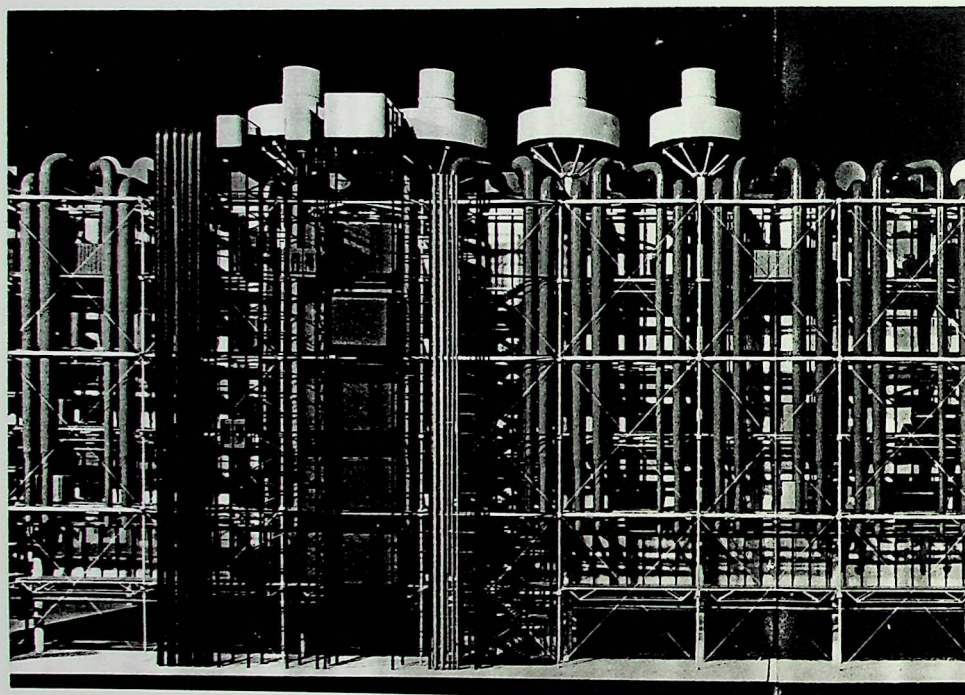
Fig. 25 Georges Pompidou Centre
By placing the pipes and stairways on the exterior of the building the ar-
chitect is publicly acknowledgeing the process of the construction of the
building. This is further emphasised by the bright colour scheme.

this is

Chicago

ABCDEFGHIJK

QRSTUVWXYZabcdef

Fig. 26 Low-resolution typefaces (chicago)
This is the typeface used by Apple for themenu/file listings on the Macintosh screen. Its structure is very simple in terms of computer memory and digital generation, thereby saving most of the computer's memory for more useful employment.

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 æøßÆØ &?!£$%(.,;:)

E1 a1 Ea1 Ea1 Ea1

60pt 12.6mm
IL4053

60pt 12.6mm
IL4054

48pt 9.9mm
IL4055

36pt 7.4mm
IL4056

24pt 4.9mm
IL4057

Fig. 27(a) Bembo

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 ß &?!£$(.,;:)

E1 a Ea1 Ea1 Ea1 Ea1 Ea1

60pt 12.6mm
IL1755

60pt 12.6mm
IL1756

42pt 9.1mm
IL1759

36pt 7.6mm
IL1760

30pt 6.3mm
IL1761

24pt 5.3mm
IL1762

18pt 3.9mm
IL1763

Fig. 27(b) Garamond

Fig. 28 Helvetica (modified in MacPaint)
This example illustrates the ease with which typefaces can be changed and modified. MacPaint is essentially a drawing program and is not suitable for extensive or complex use of type. The resolution of the type generated by MacPaint is quite low in comparison to graphic programs such as RSG or QuarkXpress and makes extensive modification of type a very simple operation
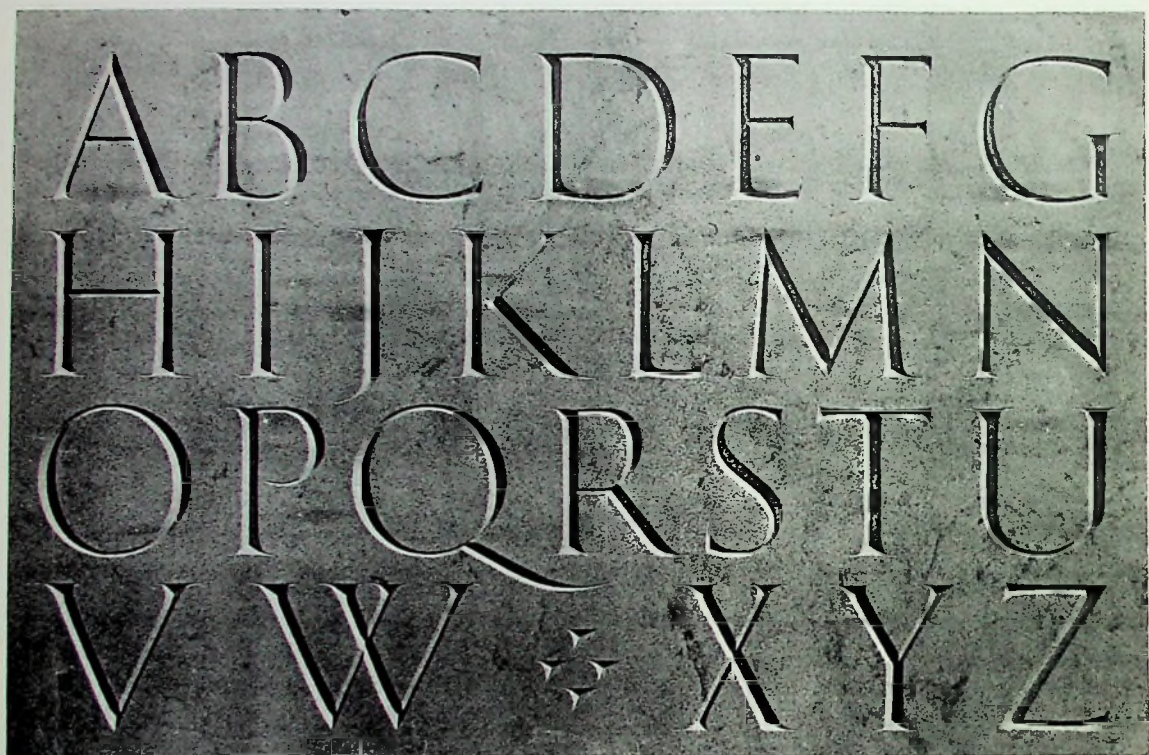
Fig. 29 Roman stone-carved type
Aspects of letterforms such as serifs have come about mainly through the
process of carving letters into stone. It was first used simply as a conven-
ient way of 'finishing off' a letter, its shape being dictated to by the shape
of the chisel and the angle at which it was held.

This is Emperor 8

This is Emperor 10

This is Emperor 14
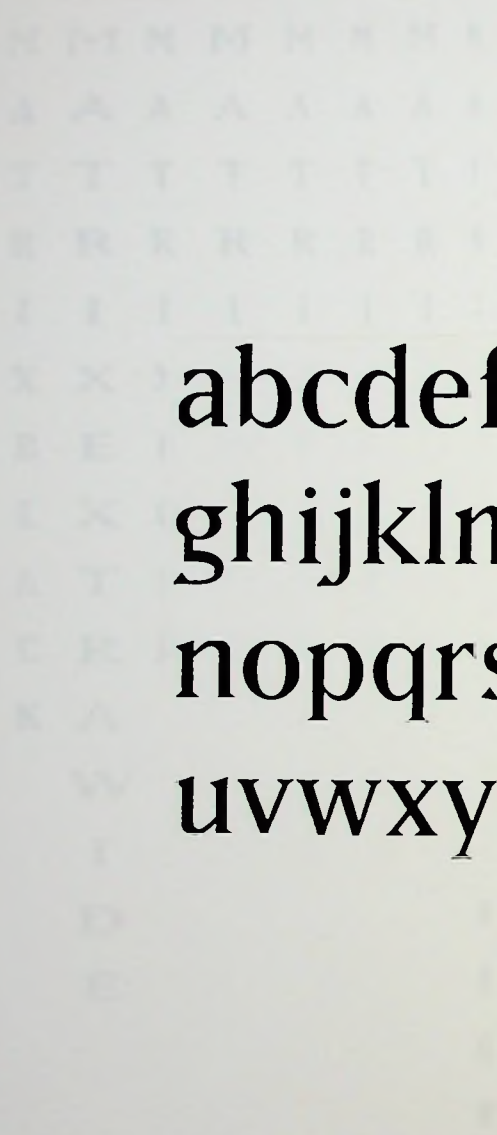
Fig.30(a) Emperor 8, Emperor 10, and Emperor 14
The Emperor family consisits of a series of fonts that maintain the same
horizontal proportions while varying the vertical height.

abcdef
ghijklm
nopqrst
uvwxyz

Fig.30 (b) Emigré 14
Emigré was designed as a versatile text for the coarse printing methods of
the dot matrix printer, originally the only printer available for the
Macintosh.

abcdef
ghijklm
nopqrst
uvwxyz

Fig.31 Matrix
Fig. 31(a) the Matrix font is derived from Emigré 14. Matrix consumes
relatively little memory space to store in the printer and generates
printouts very quickly.

M M M M M M M M

A A A A A A A A

T T T T T T T T

R R R R R R R R

I I I I I I I I

X X X X X X X X

B E B W R N L E

L X O I E A I X

A T L D G R G T

C R D E U R H R

K A   L O T A

  W   A W   N

  I   R   A

  D   R

  E   R

              O

              W

Fig. 31 (b) the Matrix family
Displayed here are the four weightsd of the Matrix family: Black, Bold,
Regular and Book. Alternately inserted are the extended and condensed
versions of the regular face.

...ature of our clients keeps things lean and mean. And when they spend $1,500, ...ar responsibility to give them something that is unique and of equivalent value. ...e. We're sort of drifting away from my game plan here, but you touched upon ...iportant subject. During your lecture at CCAC, you talked about the subject of ...iality and uniqueness. I don't hear too many designers discuss this topic, and ...ery much intrigued by this because there's a real lack of originality in graphic ...n. And not just designers being original in comparison to other designers but ...vithin their own work.

Exactly. And that was the point I was trying to make during my lecture. As I ..., it's on two levels. First of all, the solution to the project that you are working ...iould be honest to its intent; i.e., the client's message and/or objective, and ...d therefore be original. Unless the parameters are *exactly* the same, it can't look ...ke a Michael Vanderbyl piece. And secondly, within yourself, if you treat your ...activity as a designer in the same way that artists treat their work, you will dis- ...that the design process is an art and you do find yourself working through your ...problems and concerns, the ones that you adopt and establish for yourself. ...her it is the relationship between the letterforms and the message, or whether it ...ir exploration of a personal vocabulary of color and form, or all of the above si-

formation is changing?

Jeffery: The differences between writing and drawing are much smaller, and looking and reading are becoming the same thing. In the past as you sat down to write a letter, you wouldn't think about how the letter looked. You just used whatever typeface was on the typewriter, and there was a certain format you wrote letters in and read letters in. Now, you sit down behind a Macintosh and you have to make all these decisions: what typeface to use, what point size, what margins, etc. Now you are

by making everybody l
can produce professio1
·aphic design quickly a1

Fig. 32 Matrix (body copy) This shows the versatility of Matrix as a body copy face, in different sizes.

The LORD is my shepherd;
        I shall not want.
He maketh me to lie down
            in green pastures:
        he leadeth me
            beside the still waters.
He restoreth my soul:
        he leadeth me
            in the paths of righteousness
            for his name's sake.
Yea, though I walk through the valley
        - of the shadow of death,
        I will fear no evil:
    for thou art with me;
        thy rod and thy staff
        they comfort me.
Thou preparest a table before me
            in the presence of mine enemies:
        thou anointest my head with oil,
            my cup runneth over.
Surely goodness and mercy
            shall follow me
            all the days of my life:
        and I will dwell
            in the house of the LORD
            for ever.

Fig. 33Psalm 23, printed by Donald Knuth's Metafont program The Psalm
here starts in an old-fashioned, highly serifed typeface and gradually mod-
ulates into a modernistic, sans-serif typeface. Each step, imperceptible on
its own, is accomplished by making a tiny shift in 28 parameters governing
the overall appearance of the computerised alphabet.

	A	B	C	D	E	F	G
1	Balmoral	Cardinal	Squire	Glastonbury	Arnold Böcklin	Bottleneck	Countdown
2	Eckmann Schrift	Futura Black	Hobo	Lazybones	Old English	Revue	Park Avenue
3	Romic Bold	Tintoretto	Vivaldi	Univers 67	Airkraft	Apollo	Algerian
4	Astra	Baby Teeth	Block Up	Bombere	Buster	Calypso	Columbian Italic
5	Aristocrat	Company	Glaser Stencil	Cathedral	Good Vibrations	Le Golf	Harrington
6	Harlow Solid	Motter Ombra	Masquerade	Phyllis	Pluto Outline	Process	Primitive
7	Magnificat	Quicksilver	Raphael	Roco	Shatter	Stripes	Sinaloa
8	Stop	Stack	Piccadilly	Neptun	Motter Tektura	Odin	Yagi Link Double

Fig. 34 An example of the range of 'A's available through modern phototypesetting systems.

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Fig.35 'Helveticality emerging from the gloom'.

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 ß &&?!£$(.,;:)

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 ß &?!£$(.,;:)

Gill Sans
Monotype
●

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 æøßÆØ &?!£$%(.,;:)

Frutiger 45
Stempel
●

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 æøßÆØ &?!£$(.,;:)

Franklin Gothic
Bold
© 1976 Esselte Letraset Ltd
●

News Gothic
ATF
●

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 ß &?!£$(.,;:)

Grotesque 9
Stephenson Blake
● ○

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 ß &?!£$(.,;:)

Fig. 36   typefaces similar to Helvetica.