

Re-Inventing Technology  
Peter Rosenfeld

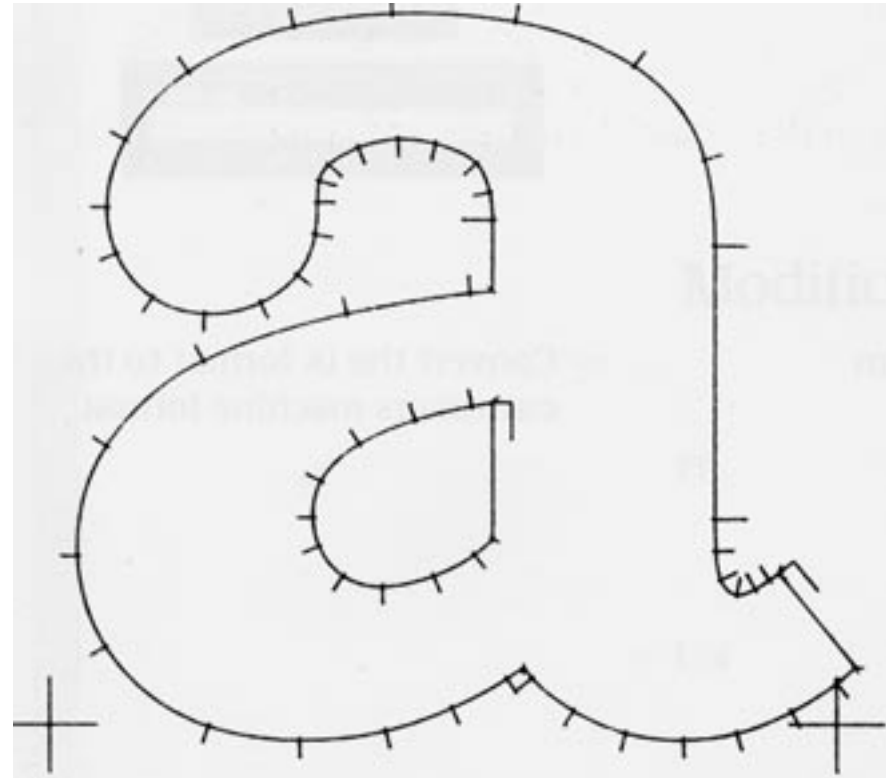
IKARUS



Dr. Peter Karow



**AIR/ISTO**





## IKARUS Philosophy

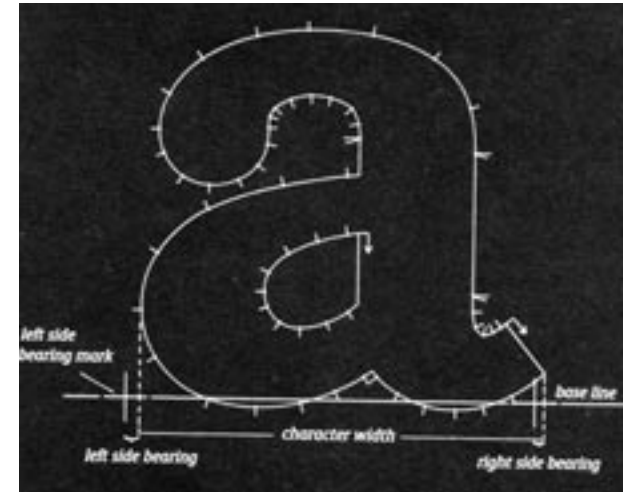
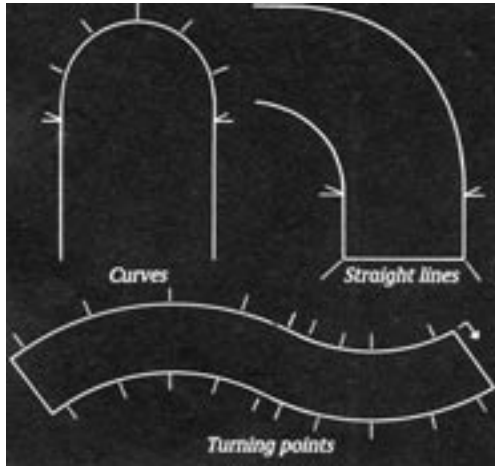
**Productivity**

**Effectiveness**

**High Quality**

Icarus crashed into the sea on his escape from Crete (Greek island). He'd fly too close to the sun with 'wax-glued' wings.





## Advantages

Good Database Format

Easy Data Input

Minimal Storage Requirements

Easy Editing

Very High Accuracy

Perfect Soft-Scanning

Perfect Modifications

Suited for all Output Devices

Batch and Interaction

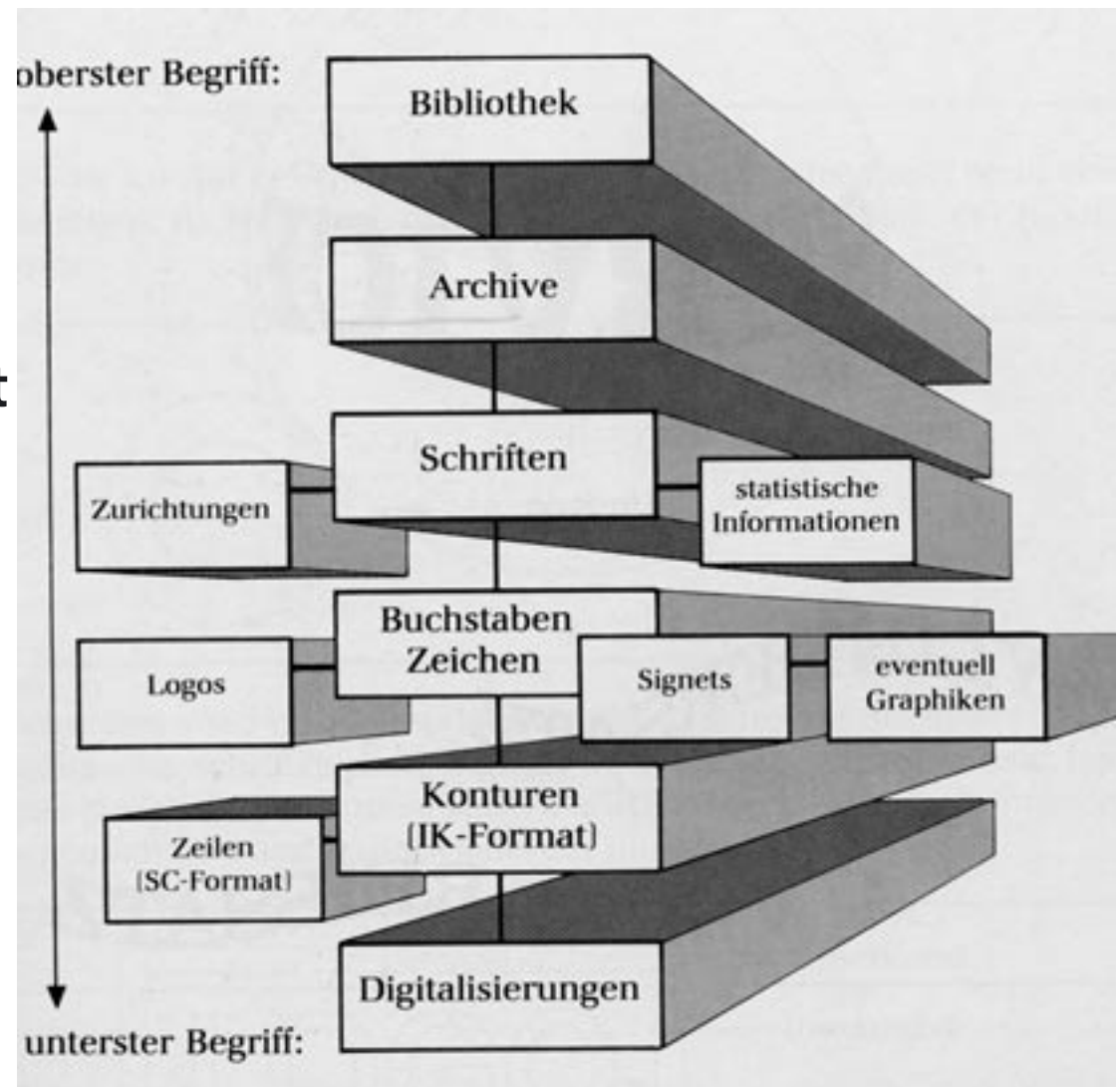
Automatic Digitizing

## Good Database Format

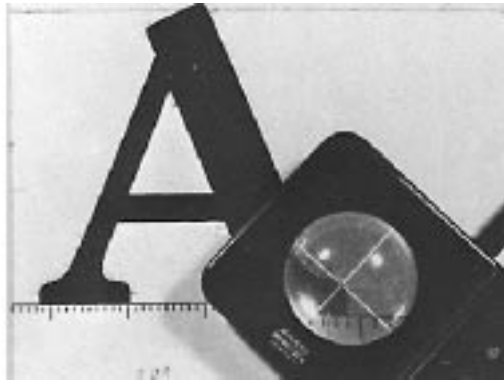
uni(que) code for each glyph

two-byte encoding

IK easy to convert to other formats



## Easy Data Input



analog artwork

manual marking

hand-digitization

proofing on drafting machine



numerical input of corrections

screen proof

no autotracing for fonts

first interactive outline editor

## Minimal Data Storage

256 KB RAM / 10 MB Disc

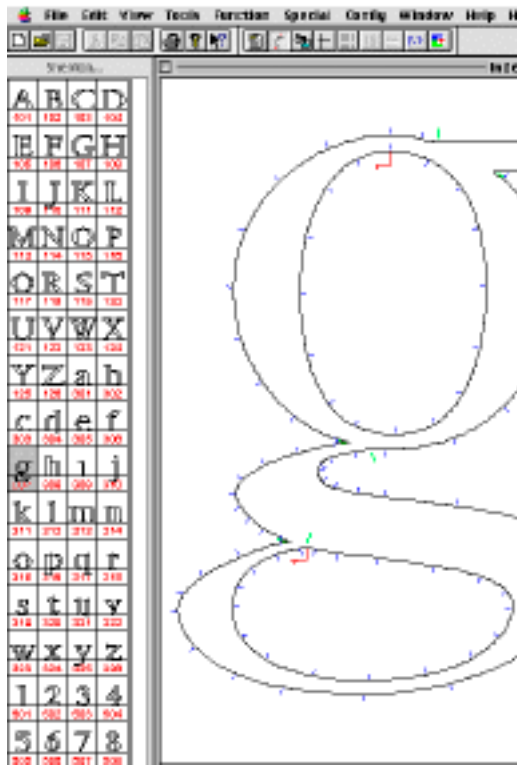
IK typeface: 200 glyphs / 20 KB

CJK: 20.000 glyphs / 10 MB



Axel Stoltenberg

# Easy Editing



R:	0	FONT DISPLAY	PREVIOUS	NEXT		SAVE	ORIGINAL	LSB: 1120	YSH: 0	DL: 12
T:	bevi,sh	BACKGROUND	SAVE COMP:	AUTO	SEMI	NORMAL	DD	N: 7200	THX: 11309	OH: 2
C:	02P2							RSB: 300	TOFN: 0736	3049/ 5206

SEPARATION			
swf	ok, fill		
X			
T			
I			
P			
L			
Automatic			
info			
+			

e	co	ca	ch
EDIT	INFO	MO	KA
	BIT	SPEC	
EDIT			
quit	undo		
delete	insert	change label	
shift	shift hor.	shift ver.	
shift smooth	quish on co	adj to guide	
merge	copy	channelize	
scale	rotate	mirror	
fit	merge comp.	hidden lines	
sidebearings	text	tip, header	
store 1	2	3	4
	5	6	7
	8	9	10
paste 1	2	3	4
	5	6	7
	8	9	10
DISPLAY			
reset	zoom +	zoom -	setup
measure	marks	numbers	coords
fill	para	compark	shift bg
flat curv	inflect.	stems	hide co
guides	co guides	mov	edit
ff guides	y guides	grid	copy bg

A diagram showing a large 'L' shape with pink dimension lines. The vertical stem is labeled '1047,0' and the horizontal base is labeled '945,0'. A smaller 'L' shape is shown above it with a dimension of '209,0'. A dashed horizontal line is at the bottom, and a crosshair is in the center.



## Very High Accuracy

15.000 x 15.000 units

artwork: 100 mm

accuracy: 1/100 mm

Text



Display



Poster

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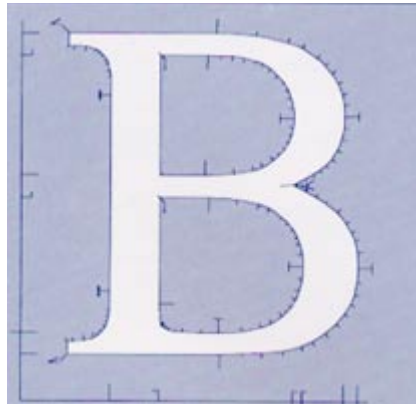
Albert-Jan Pool, Peter Karow  
at Didot Seminar at URW,  
1992

## Rendering / Hinting

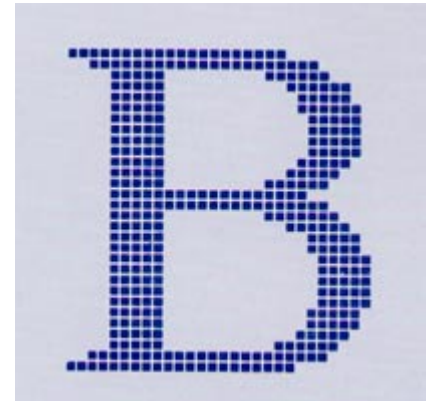
Passe



Hinting



IK -> SC



Hardscanning



Softscanning by IKARUS



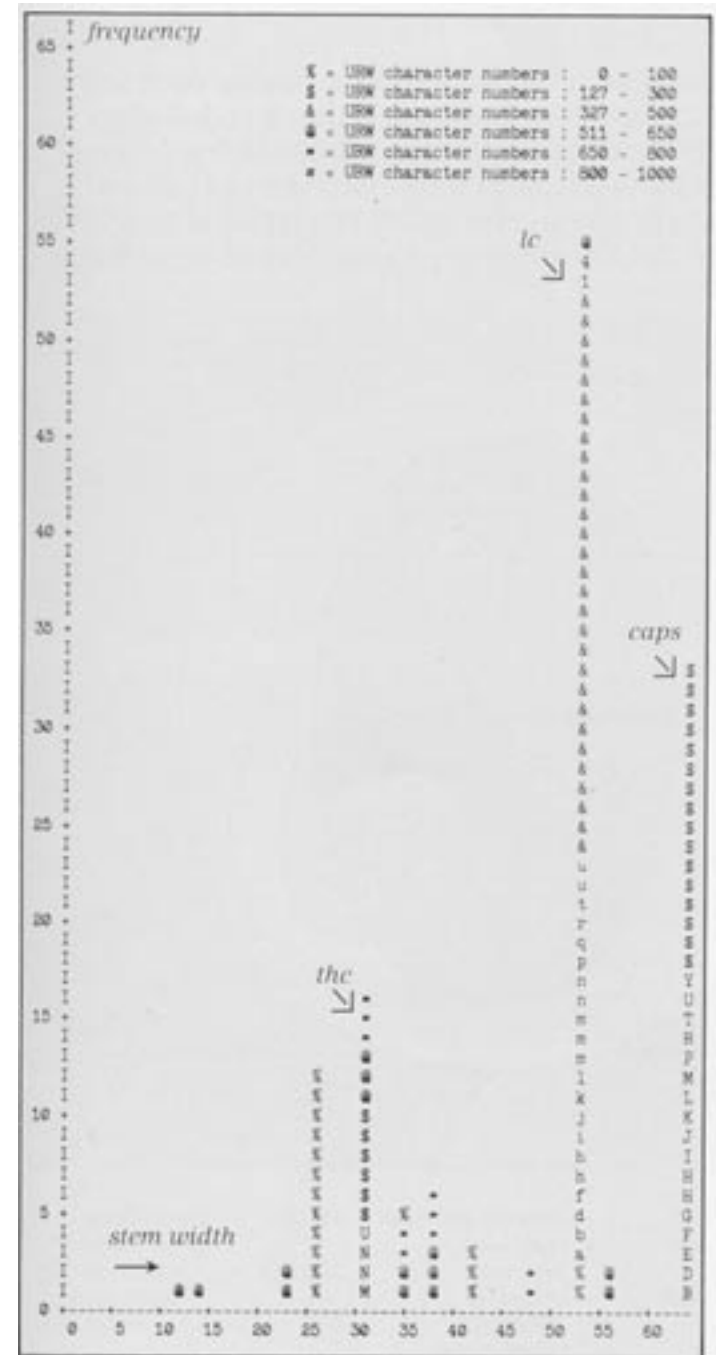


## Pattern Recognition (Passe Program)

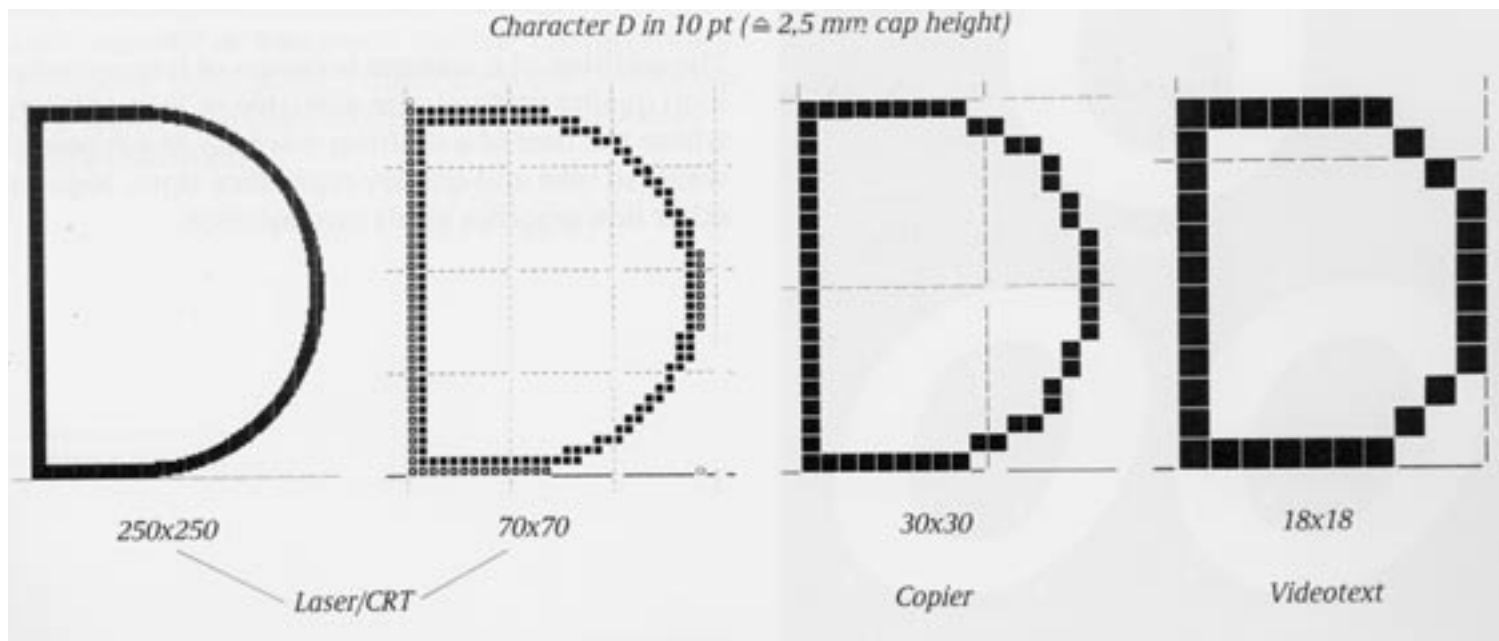
### Distribution of stems







Dr. Jürgen Willrodt


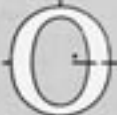




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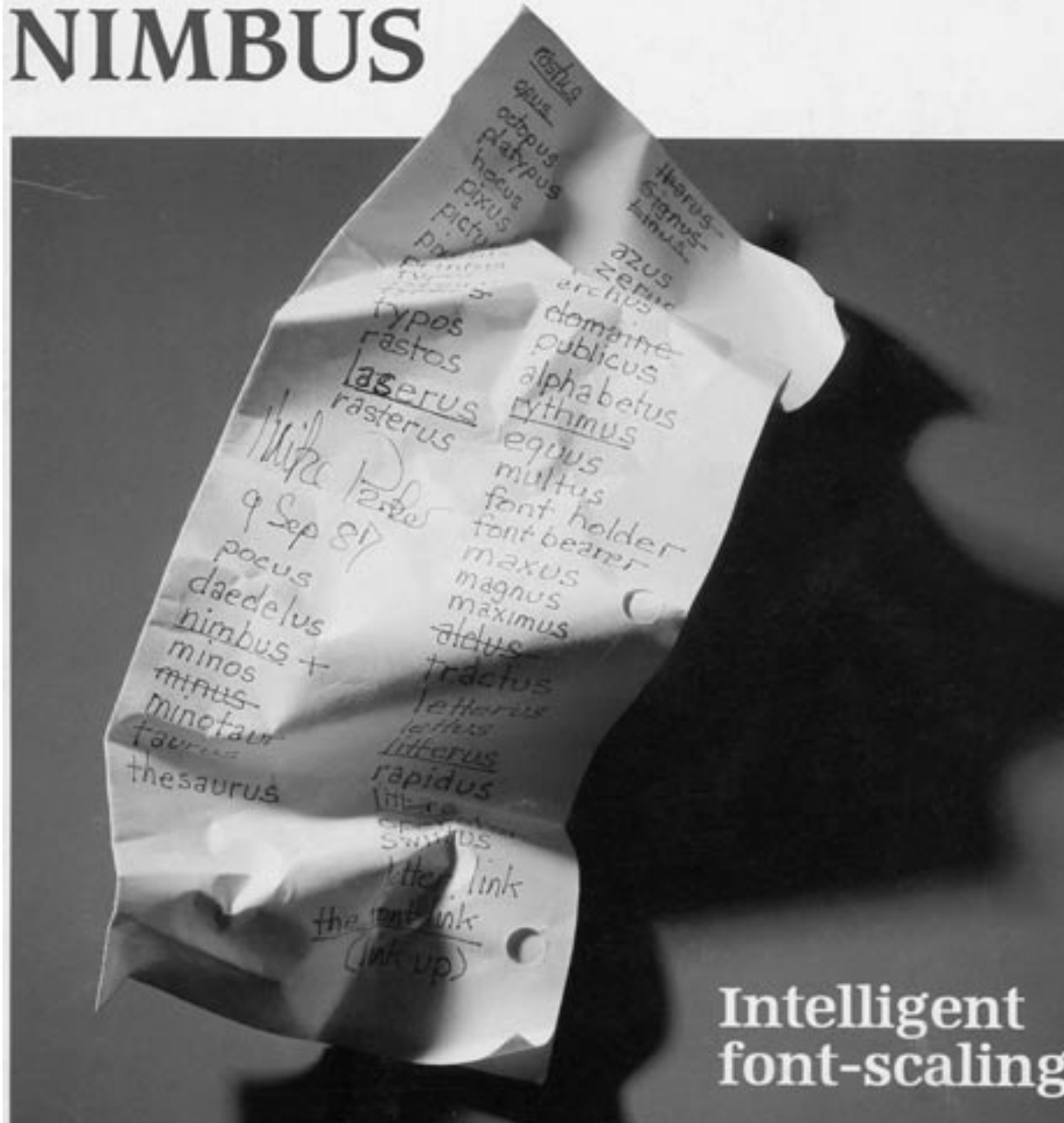
## Descriptive Elements

- Vertical straight stems 
- Horizontal straight stems 
- Vertical curved stems 
- Horizontal curved stems 

- Half-serifs  
(defined by start and end) 
- Start and end of curves  
Extrema of curves 
- Vertical peaks 
- Horizontal peaks 



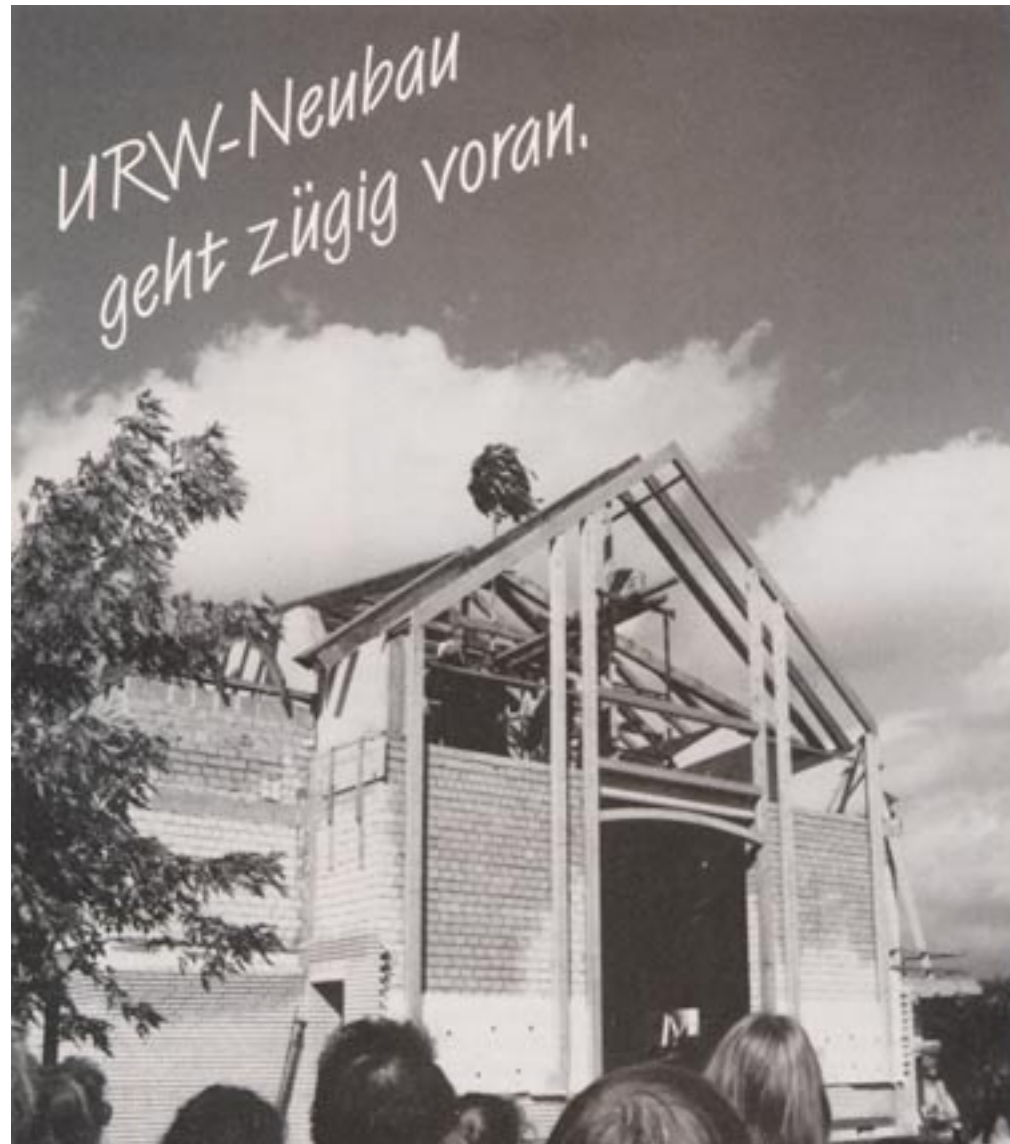
# NIMBUS



Intelligent  
font-scaling



Mike Parker





## Perfect Modifications

**Any Size**

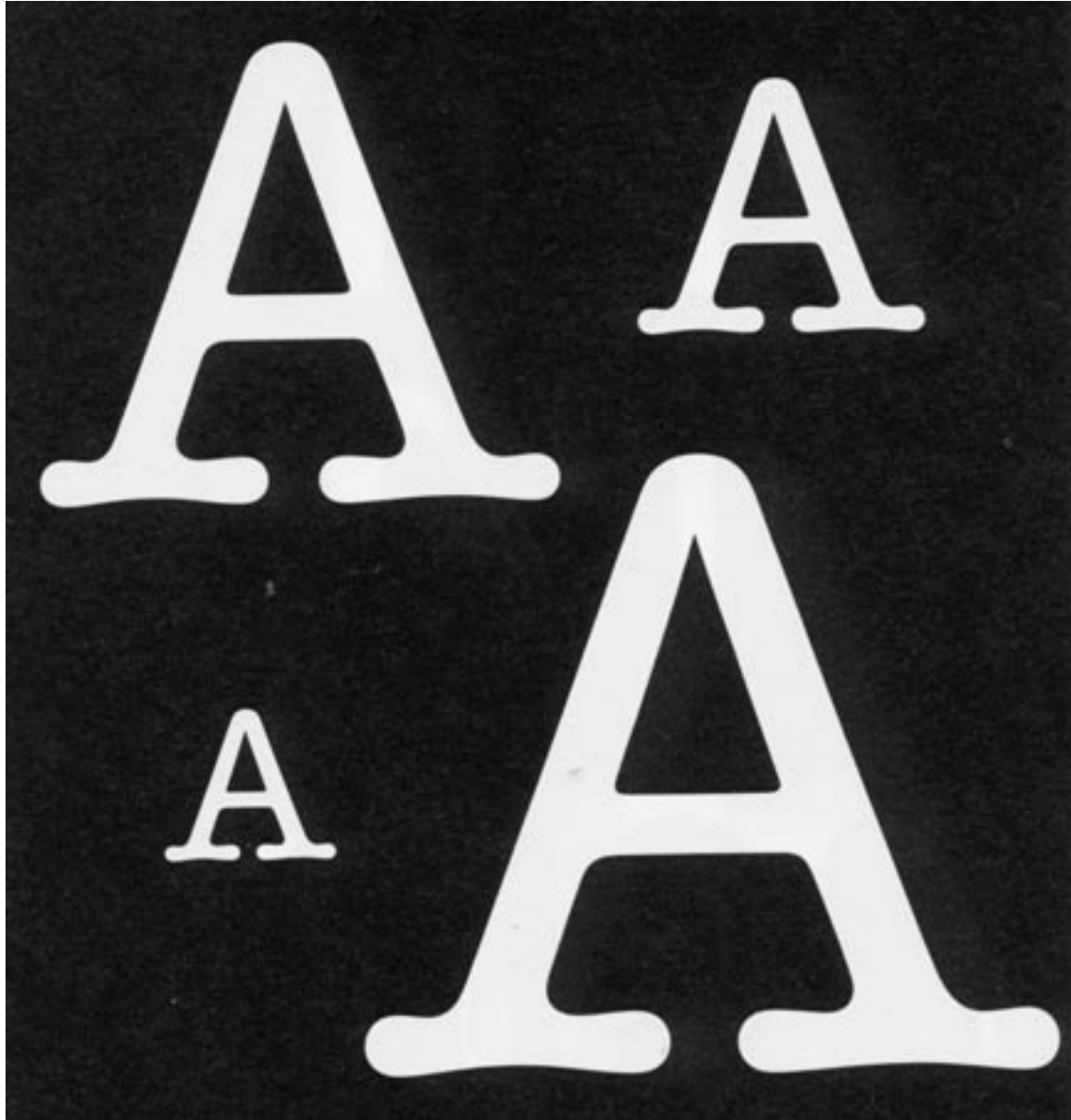
**Italicizing**

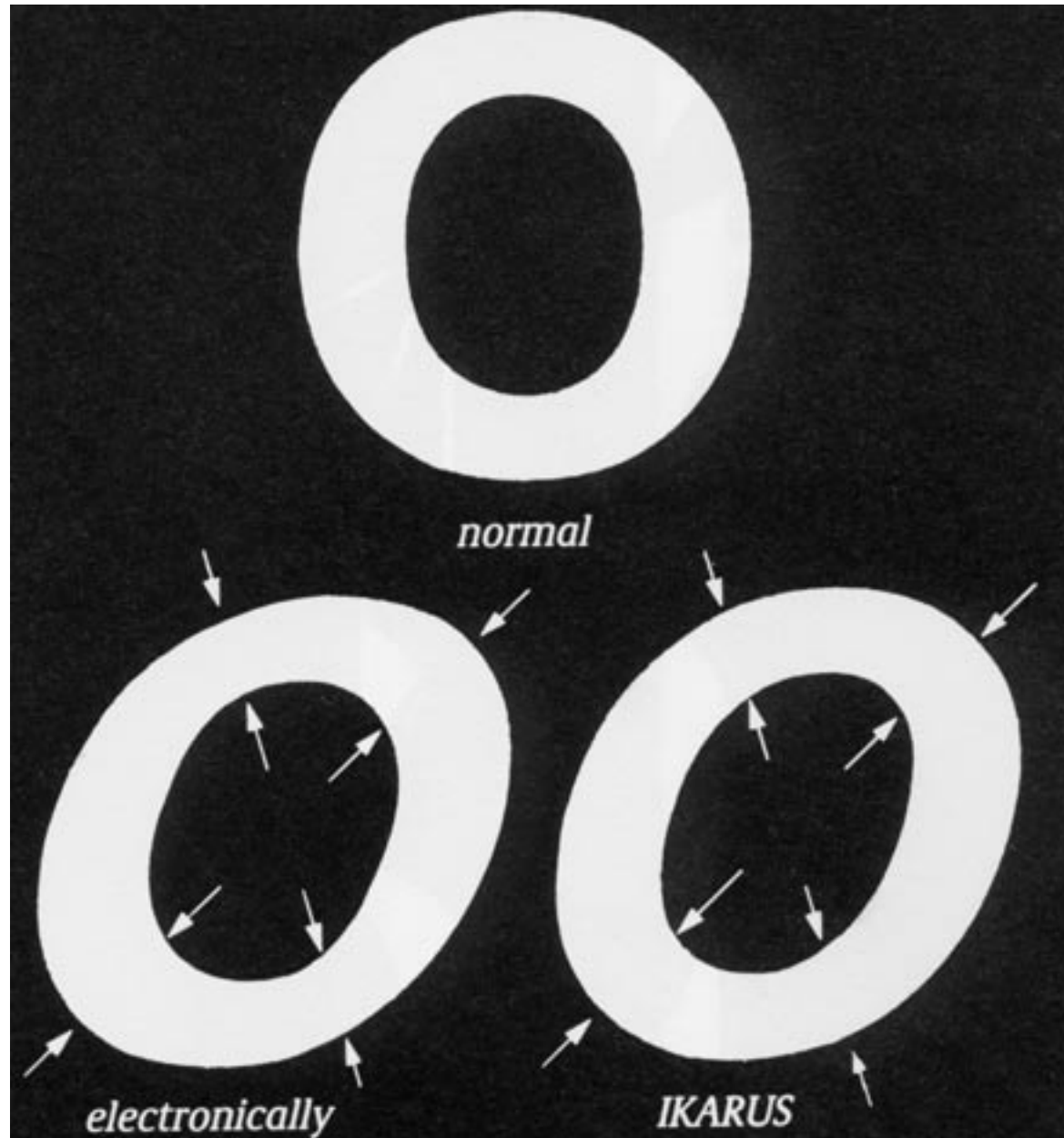
**Expanding / Condensing**

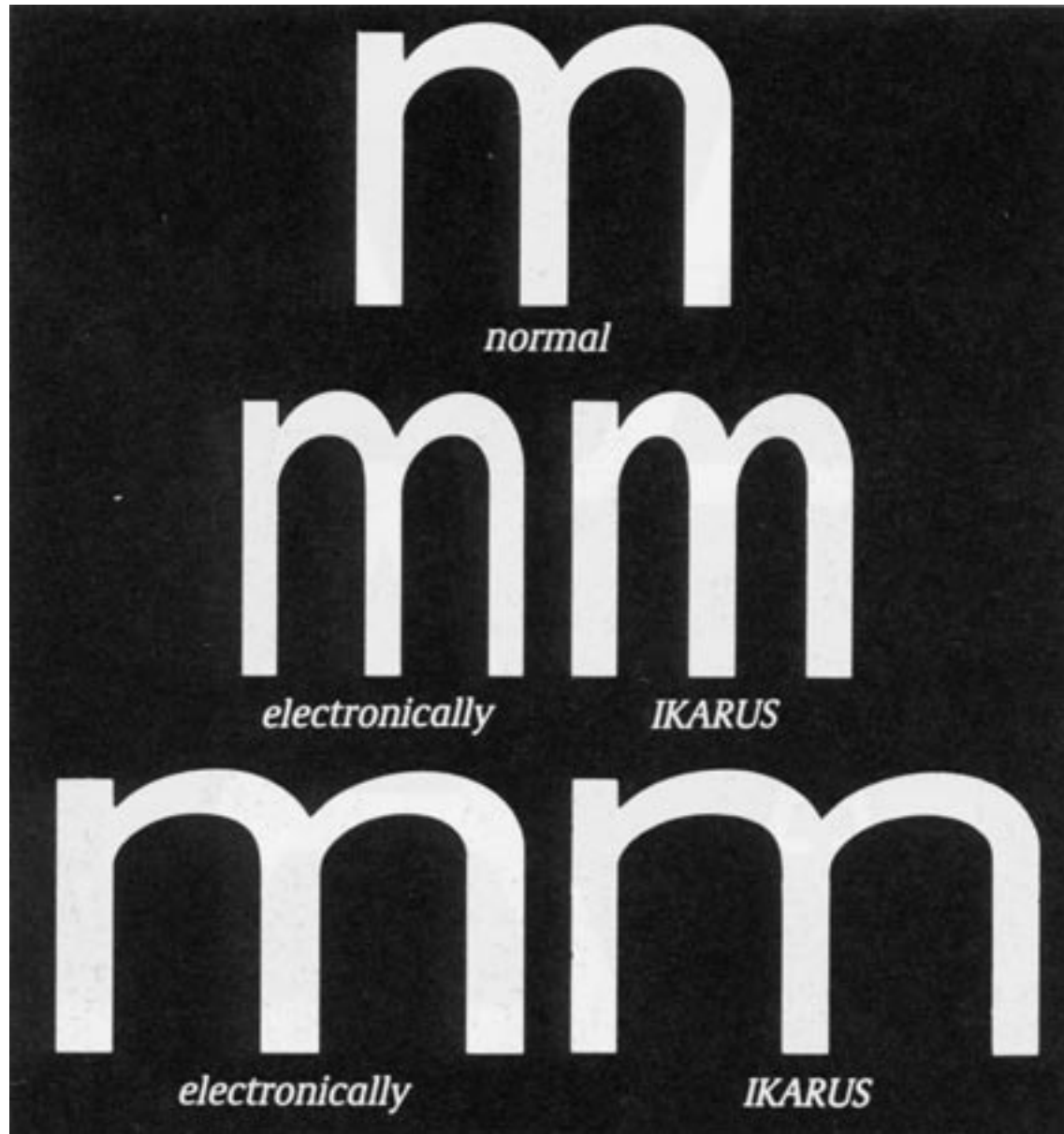
**Interpolation**

**Outline, Inline**

**Contour, Round, Shadow**







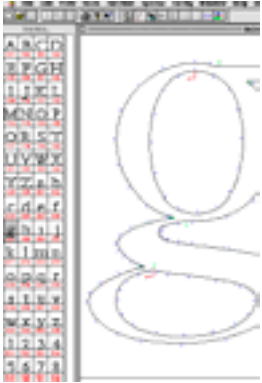




Gu Jun







## All Output Formats

IK -> DI

IK -> BE

IK -> VE

IK -> QB

IK -> SC

IK -> BI



Hartmut Schwarz

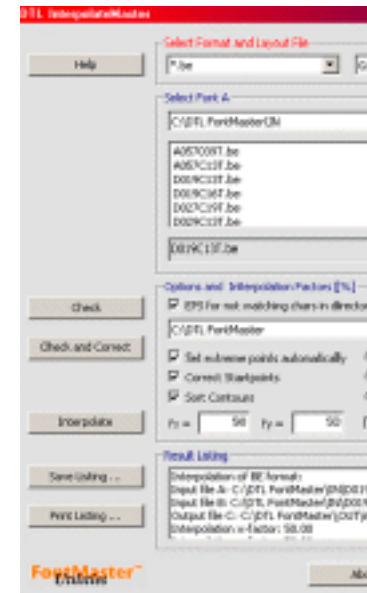
## Batch and Interaction

Alignments

Serifs

Stems

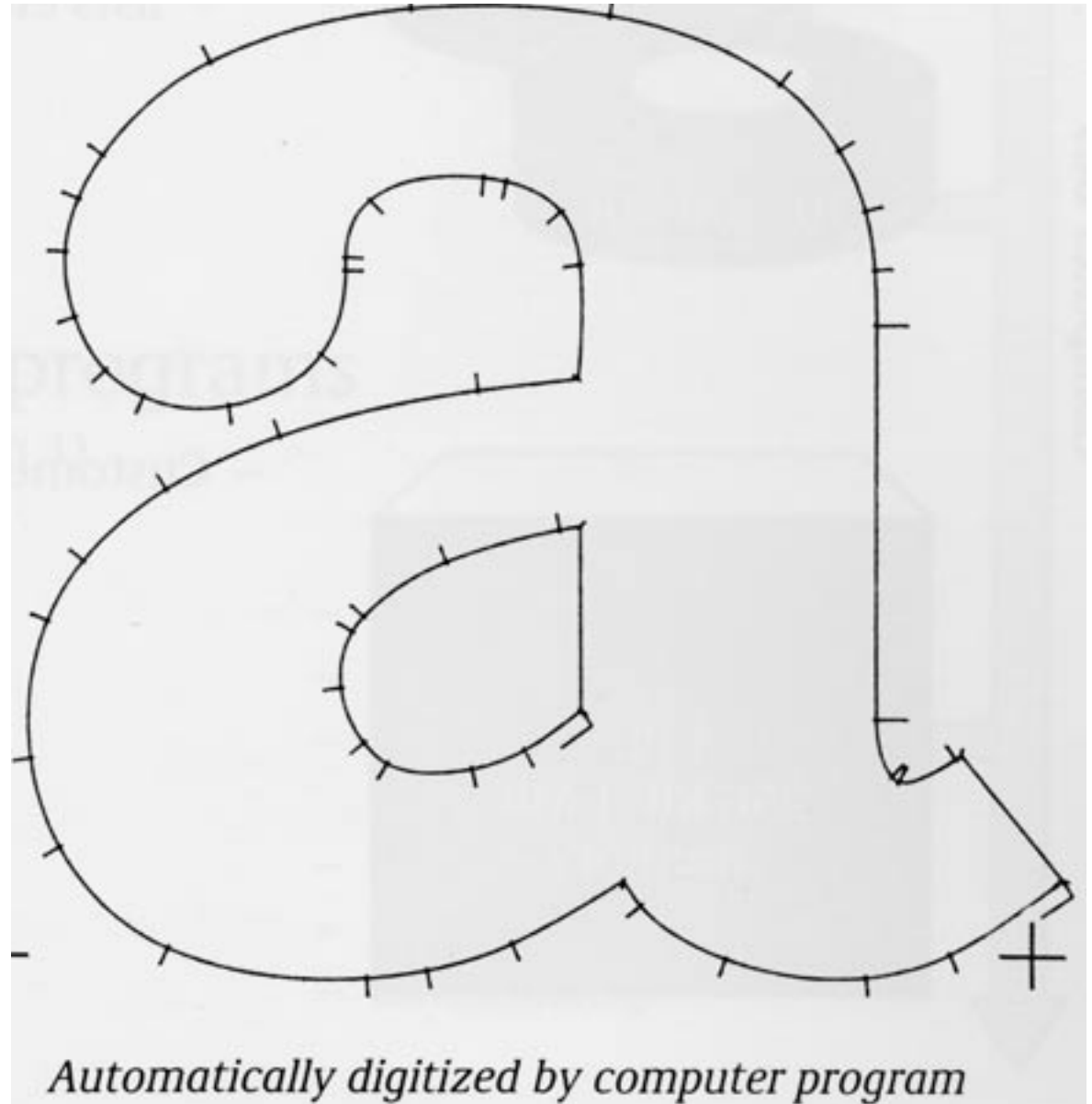
Accents



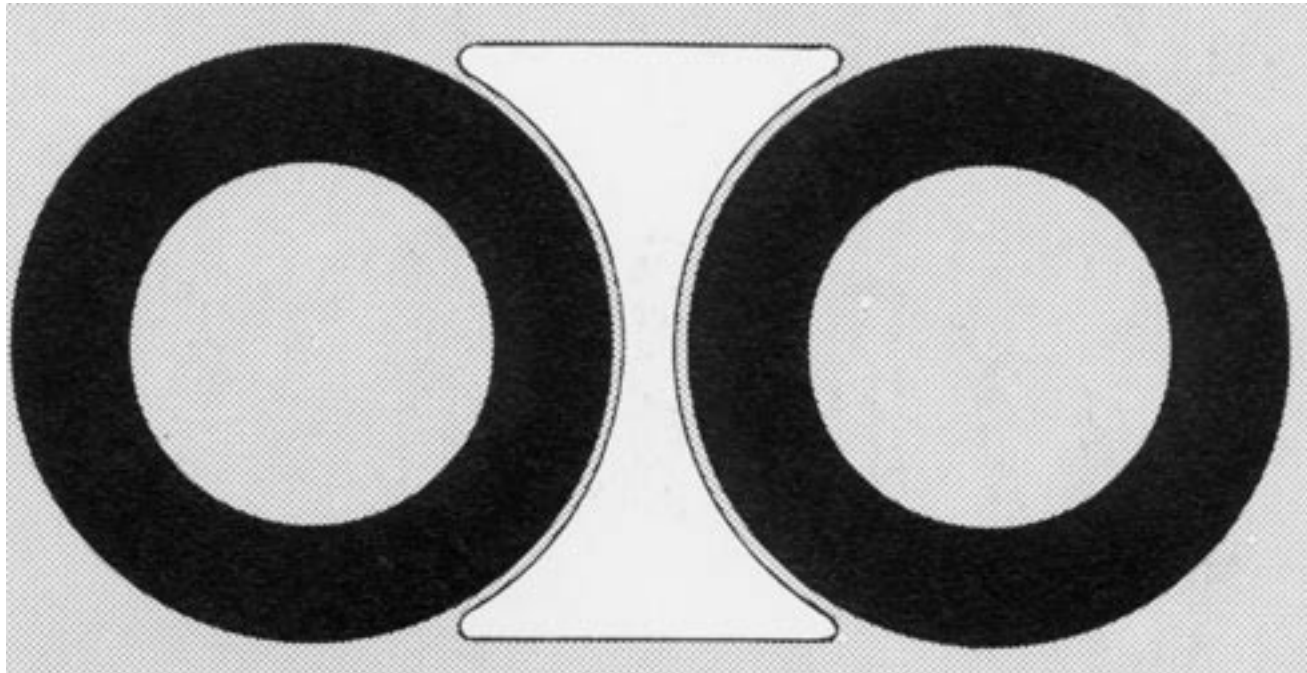
## ME - Automatic Digitizing

SC -> IK

Parameters pre-set, editable



## Spacing and Kerning



## Kerning

Spacing

**Television**  
*traditional*

Long Kerning

**Television**  
*kerning*

Kissing

**Television**  
*kissing*

Touching

**Television**  
*sexy setting*

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## Résumé

30 years of experience

extremely powerful

available in DTL FontMaster



Frank Blokland