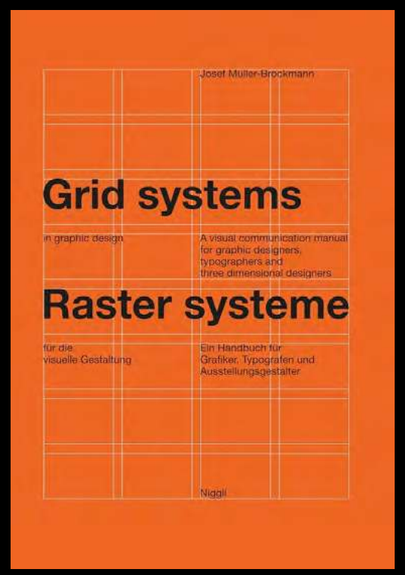
Unit 02
Symposium

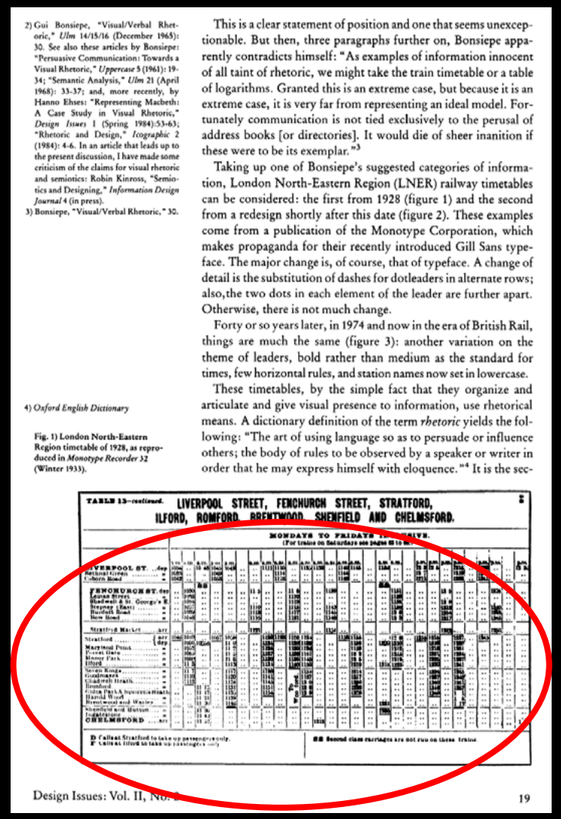


Fitted Rather Than Read

*Starting point_* Can design be neutral?

I began Unit 2 by asking whether design can be neutral. Müller-Brockmann presents the grid as a neutral aid, yet writes that using it means "submitting to laws of universal validity" (1981, p.10). I read that submission as a choice and tested it.





2) Gui Bonsiepe, "Visual/Verbal Rhetoric," *Ulm* 14/15/16 (December 1965): 30. See also these articles by Bonsiepe: "Persuasive Communication: Towards a Visual Rhetoric," *Uppercase* 5 (1961): 19-34; "Semantic Analysis," *Ulm* 21 (April 1968): 33-37; and, more recently, by Hanno Ehses: "Representing Macbeth: A Case Study in Visual Rhetoric," *Design Issues* 1 (Spring 1984):53-63; "Rhetoric and Design," *Icographic* 2 (1984): 4-6. In an article that leads up to the present discussion, I have made some criticism of the claims for visual rhetoric and semiotics: Robin Kinross, "Semiotics and Designing," *Information Design Journal* 4 (in press).
3) Bonsiepe, "Visual/Verbal Rhetoric," 30.

This is a clear statement of position and one that seems unexceptionable. But then, three paragraphs further on, Bonsiepe apparently contradicts himself: "As examples of information innocent of all taint of rhetoric, we might take the train timetable or a table of logarithms. Granted this is an extreme case, but because it is an extreme case, it is very far from representing an ideal model. Fortunately communication is not tied exclusively to the perusal of address books [or directories]. It would die of sheer inanition if these were to be its exemplar."[3]

Taking up one of Bonsiepe's suggested categories of information, London North-Eastern Region (LNER) railway timetables can be considered: the first from 1928 (figure 1) and the second from a redesign shortly after this date (figure 2). These examples come from a publication of the Monotype Corporation, which makes propaganda for their recently introduced Gill Sans typeface. The major change is, of course, that of typeface. A change of detail is the substitution of dashes for dotleaders in alternate rows; also,the two dots in each element of the leader are further apart. Otherwise, there is not much change.

Forty or so years later, in 1974 and now in the era of British Rail, things are much the same (figure 3): another variation on the theme of leaders, bold rather than medium as the standard for times, few horizontal rules, and station names now set in lowercase.

These timetables, by the simple fact that they organize and articulate and give visual presence to information, use rhetorical means. A dictionary definition of the term *rhetoric* yields the following: "The art of using language so as to persuade or influence others; the body of rules to be observed by a speaker or writer in order that he may express himself with eloquence."[4] It is the sec-

4) *Oxford English Dictionary*

Fig. 1) London North-Eastern Region timetable of 1928, as reproduced in *Monotype Recorder* 32 (Winter 1933).

TABLE 13—continued. LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

MONDAYS TO FRIDAYS inclusive.

Design Issues: Vol. II, No. 1 19

Kinross, R. (1985) *The rhetoric of neutrality*

The use of the grid as an ordering system is the expression of a certain mental attitude inasmuch as it shows that the designer conceives his work in terms that are constructive and oriented to the future.
This is the expression of a professional ethos: the designer's work should have the clearly intelligible, objective, functional and aesthetic quality of mathematical thinking.
His work should thus be a contribution to general culture and itself form part of it.
Constructive design which is capable of analysis and reproduction can influence and enhance the taste of a society and the way it conceives forms and colours.
Design which is objective, committed to the common weal, well composed and refined constitutes the basis of democratic behaviour. Constructivist design means the conversion of design laws into practical solutions.
Work done systematically and in accordance with strict formal principles makes those demands for directness, intelligibility and the integration of all factors which are also vital in sociopolitical life.
Working with the grid system means submitting to laws of universal validity.
The use of the grid system implies
the will to systematize, to clarify
the will to penetrate to the essentials, to concentrate
the will to cultivate objectivity instead of subjectivity
the will to rationalize the creative and technical production processes
the will to integrate elements of colour, form and material
the will to achieve architectural dominion over surface and space
the will to adopt a positive, forward-looking attitude
the recognition of the importance of education and the effect of work devised in a constructive and creative spirit.
Every visual creative work is a manifestation of the character of the designer. It is a reflection of his knowledge, his ability, and his mentality.

Der Gebrauch des Rasters als Ordnungssystem ist Ausdruck einer bestimmten geistigen Haltung, indem der Designer seine Arbeit in konstruktiver und zukunftsorientierter Weise auffasst.
Dies ist Ausdruck eines Berufsethos: die Arbeit des Designers soll auf mathematischer Denkweise, klar, transparent, sachlich, funktionell und ästhetisch sein.
Die Arbeit soll damit ein Beitrag an die allgemeine Kultur, sie soll selbst ein Teil der Kultur sein.
Durch eine konstruktive, analysierbare und nachvollziehbare Gestaltung können der Geschmack der Gesellschaft, die Form- und Farbkultur einer Zeit beeinflusst und gehoben werden.
In der sachlichen, dem Allgemeinwohl verpflichteten, gut komponierten und kultivierten Gestaltung liegen die Voraussetzungen für demokratisches Verhalten.
Die konstruktivistische Gestaltung bedeutet Umsetzung gestalterischer Gesetze in praktische Lösungen.
In strenger formaler und systematischer Arbeit sind die Forderungen nach Offenheit, Transparenz und Verflechtung aller Faktoren, die auch im politischen Leben der Gesellschaft von erstrangiger Bedeutung sind, enthalten.
Mit dem Rastersystem arbeiten bedeutet, sich universell gültigen Gesetzen unterordnen.
Die Anwendung des Rastersystems versteht sich als
Wille zur Ordnung, zur Klarheit
Wille, zum Wesentlichen vorzudringen, zur Verdichtung
Wille zur Objektivität, anstelle der Subjektivität
Wille zur Rationalisierung der kreativen und der produktionstechnischen Prozesse
Wille zur Integration der formalen, farblichen und materiellen Elemente
Wille zur architektonischen Beherrschung der Fläche und des Raumes
Wille zur positiven, zukunftsorientierten Haltung
Anerkennung der erzieherischen Bedeutung und Wirkung konstruktiv und kreativ gestalteter Arbeiten.
Jede visuelle, kreative Arbeit ist eine Manifestation des Charakters des Gestalters. In ihr schlägt sich sein Wissen, Können und seine Gesinnung nieder.

10

Müller-Brockmann, J. (1981) *Grid Systems in Graphic Design*

*Testing_* Fix the source, change the grid

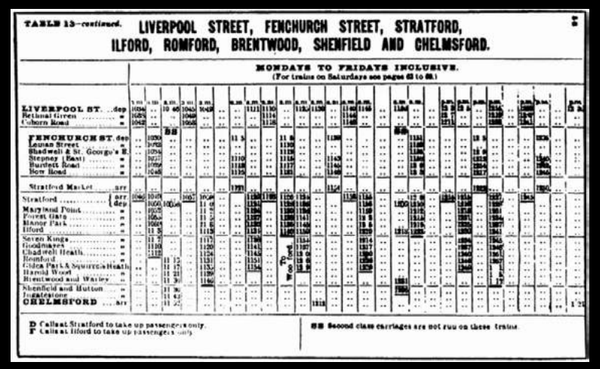


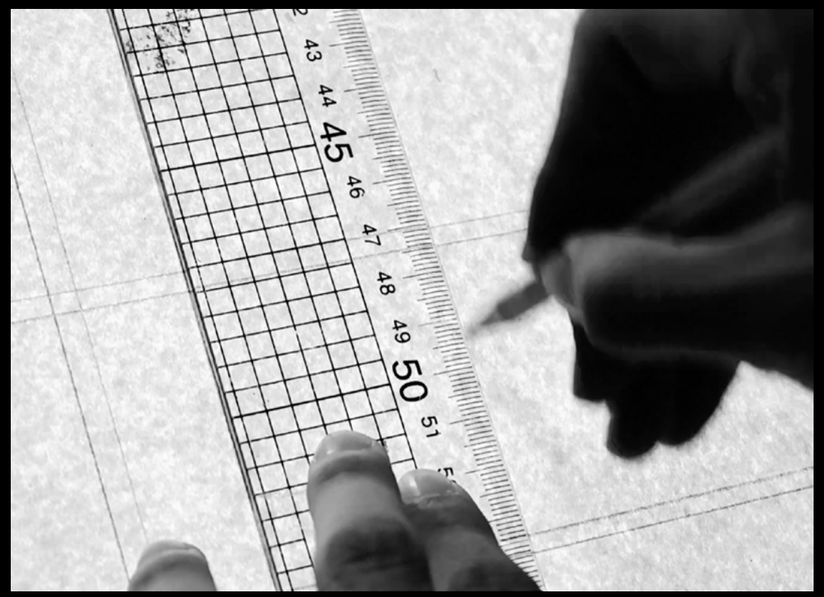
TABLE 13—*continued.* LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages 45 to 48.)

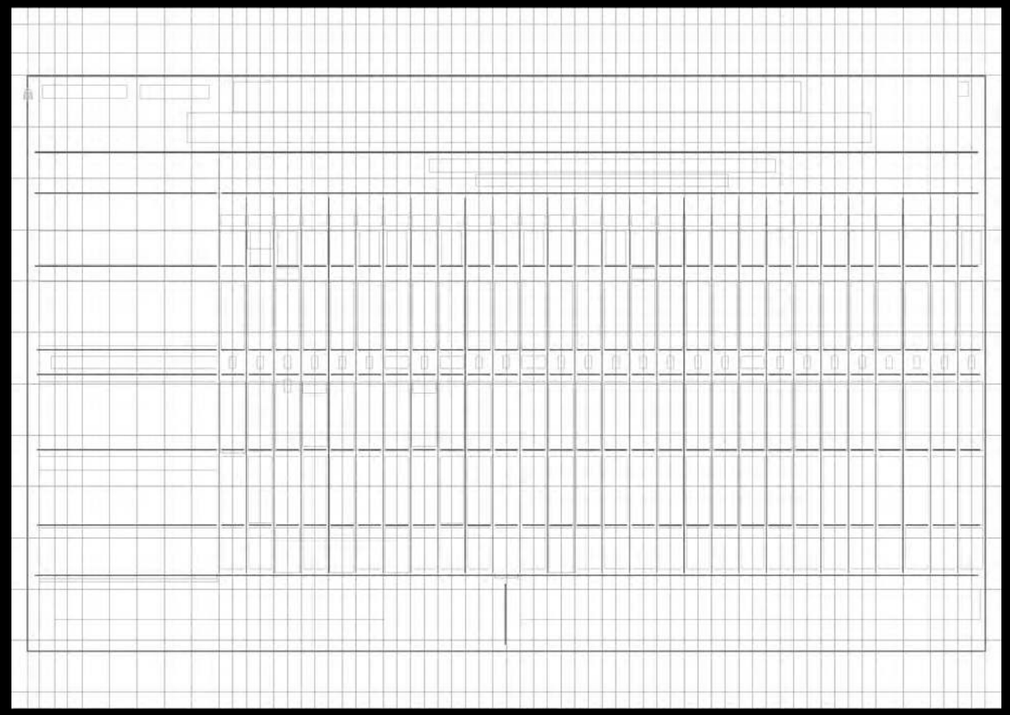
D Calls at Stratford to take up passengers only.
F Calls at Ilford to take up passengers only.

§§ Second class carriages are not run on these trains.

Kinross, R. (1985) *The rhetoraic of neutrality,*
Fig. 1: the 1928 LNER timetable



Transfer Modern Grid



Modern Grid Translation

How does grid resolution change the legibility comparison and information loss of the same railway timetable?

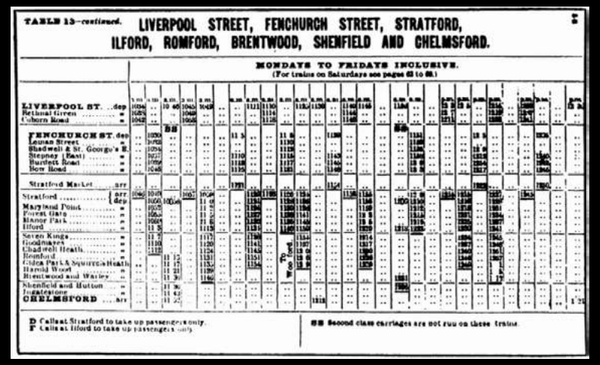


TABLE 13—*continued.* LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

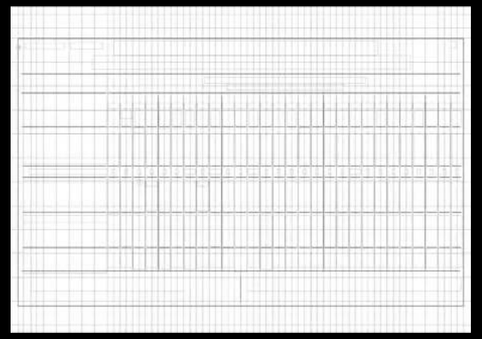
MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages 63 to 66.)

D Calls at Stratford to take up passengers only.
F Calls at Ilford to take up passengers only.

SS Second class carriages are not run on these trains.

Kinross, R. (1985) *The rhetoraic of neutrality,*
Fig. 1: the 1928 LNER timetable

Modern Grid Translation



Modern Grids and Layouts

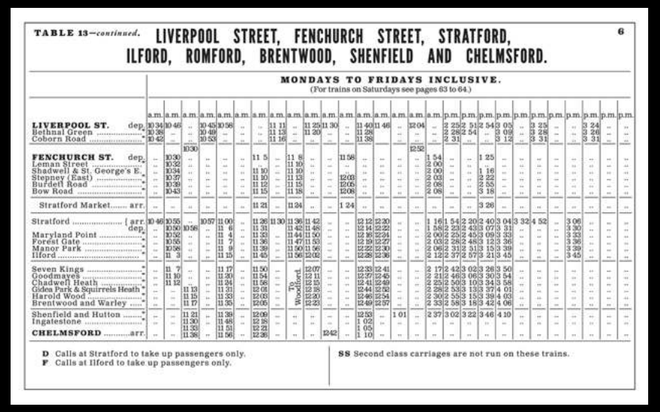


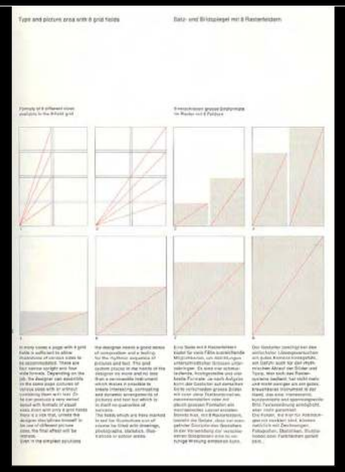
TABLE 13—*continued.* LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD. 6

MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages 63 to 64.)

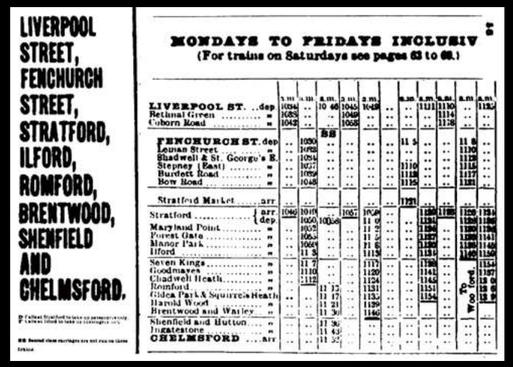
D Calls at Stratford to take up passengers only.
F Calls at Ilford to take up passengers only.

SS Second class carriages are not run on these trains.

CSM - GCD - Tao *Testing_* Fix the source, change the grid



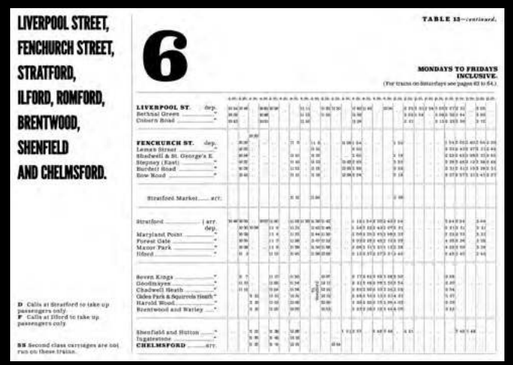
Müller-Brockmann, J. (1981)
8 grid fields
Modern Grid Translation



LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

MONDAYS TO FRIDAYS INCLUSIV
(For trains on Saturdays see pages 63 to 66.)

Modern Grids and Layouts



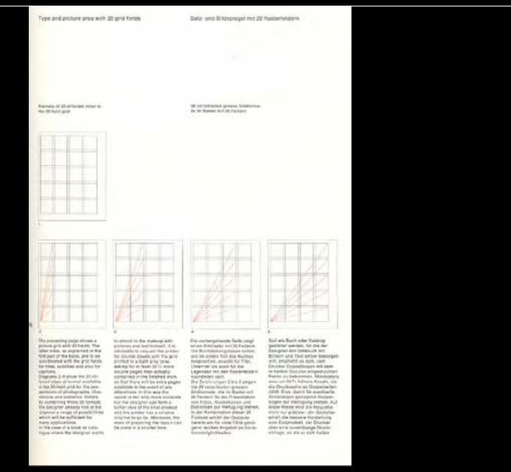
LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

6

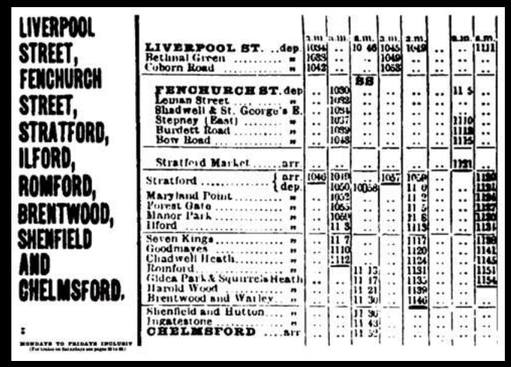
MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages 63 to 64.)

D Calls at Stratford to take up passengers only.
F Calls at Ilford to take up passengers only.

SS Second class carriages are not run on these trains.



Müller-Brockmann, J. (1981)
20 grid fields
Modern Grid Translation



LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

LIVERPOOL ST. ...dep
Bethnal Green ... "
Coborn Road ... "

FENCHURCH ST. dep
Leman Street ... "
Shadwell & St. George's E. "
Stepney (East) ... "
Burdett Road ... "
Bow Road ... "

Stratford Market ... arr

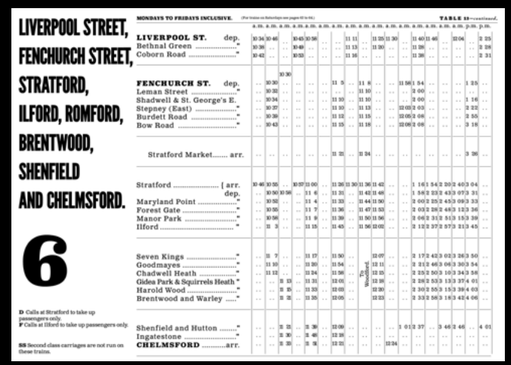
Stratford ... [arr.
dep.
Maryland Point ... "
Forest Gate ... "
Manor Park ... "
Ilford ... "

Seven Kings ... "
Goodmayes ... "
Chadwell Heath ... "
Romford ... "
Gidea Park & Squirrels Heath "
Harold Wood ... "
Brentwood and Warley ... "

Shenfield and Hutton ... "
Ingatestone ... "
CHELMSFORD ... arr

MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages 63 to 66.)

Modern Grids and Layouts

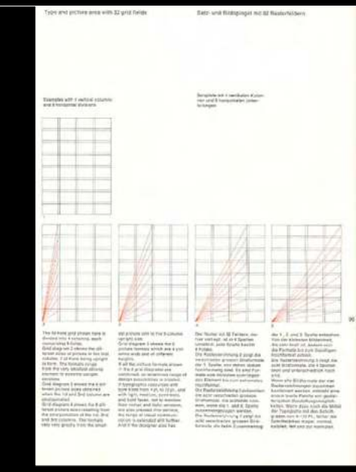


LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

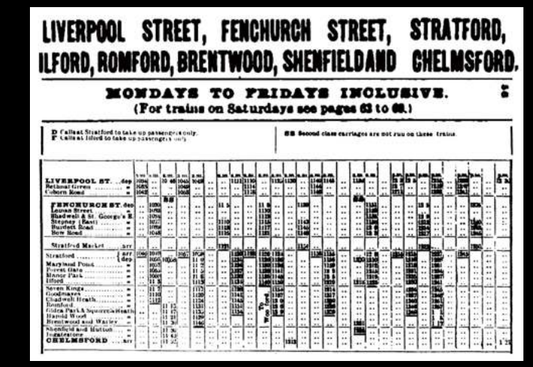
6

D Calls at Stratford to take up passengers only.
F Calls at Ilford to take up passengers only.

SS Second class carriages are not run on these trains.



Müller-Brockmann, J. (1981)
32 grid fields
Modern Grid Translation



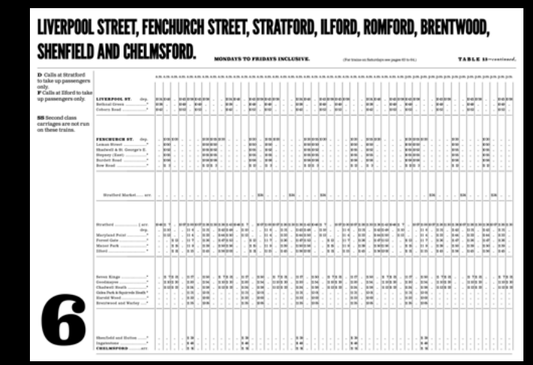
LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages 63 to 66.)

D Calls at Stratford to take up passengers only.
F Calls at Ilford to take up passengers only.

SS Second class carriages are not run on these trains.

Modern Grids and Layouts

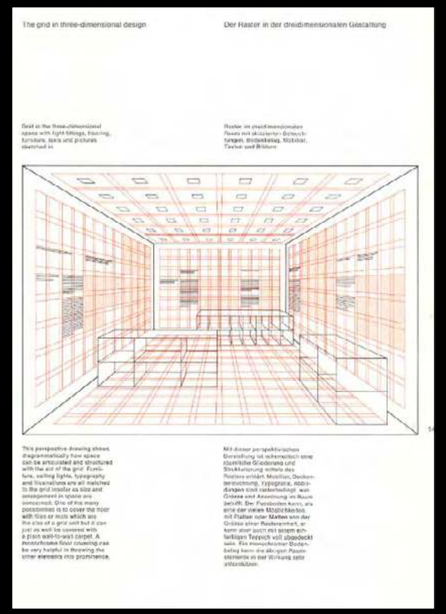


LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

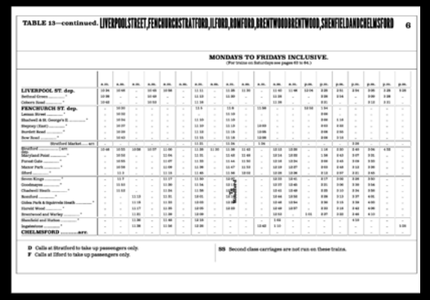
MONDAYS TO FRIDAYS INCLUSIVE.

6

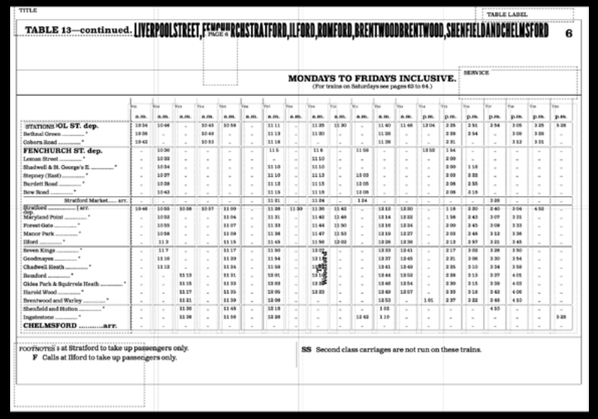
*Testing_* Grid Resolution Study



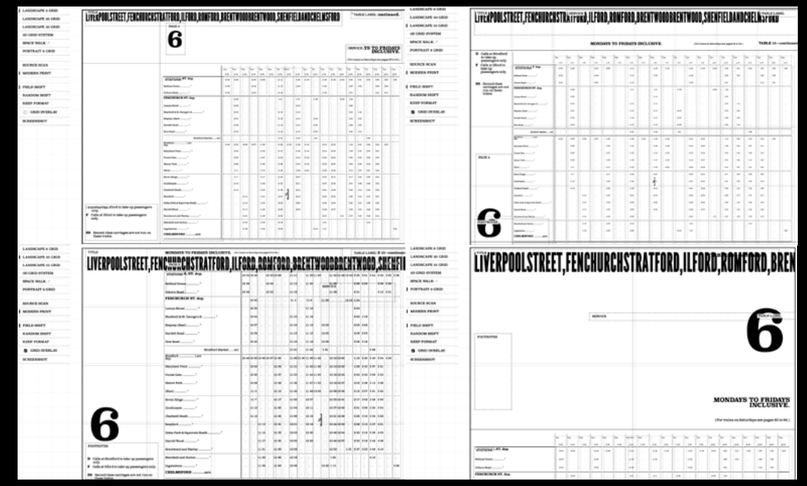
Müller-Brockmann (1981), p.148
"space can be articulated and structured with the aid of the grid"



Modern Grid Translation



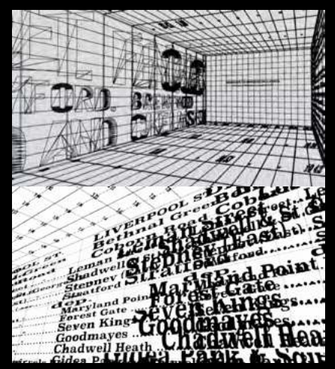
Original Information Overlaid with a Modern Grid



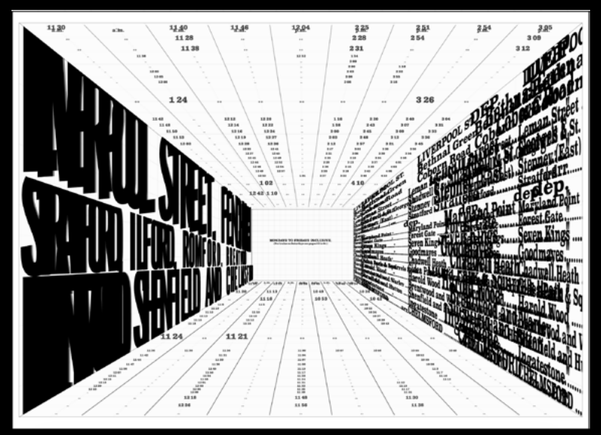
Different Grid in Web

2D

3D



3D Grid Construction and Translation



3D Website Placement



Create a 3D interactive content grid

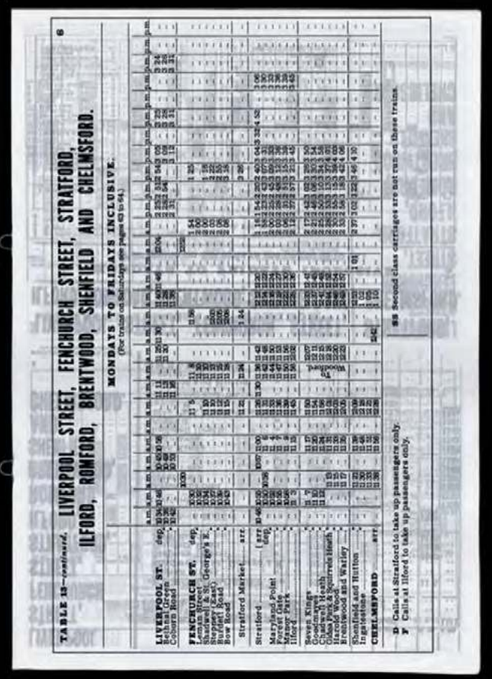
https://taogcd.github.io/timetable/

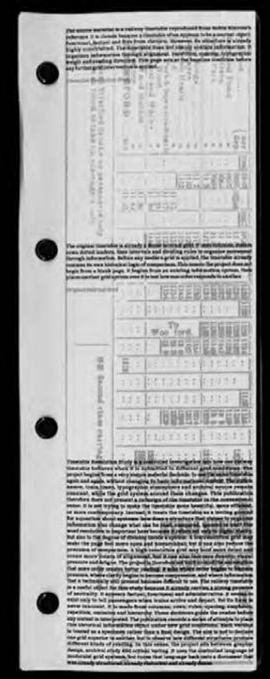
*Testing_* From screen to paper

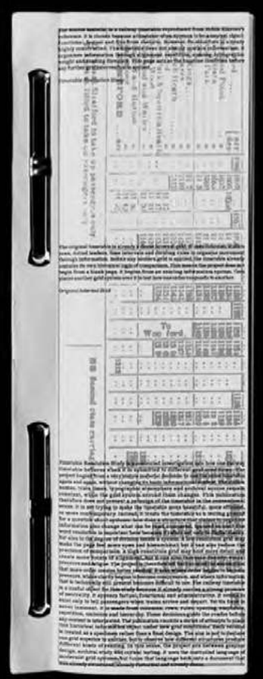
Newspaper

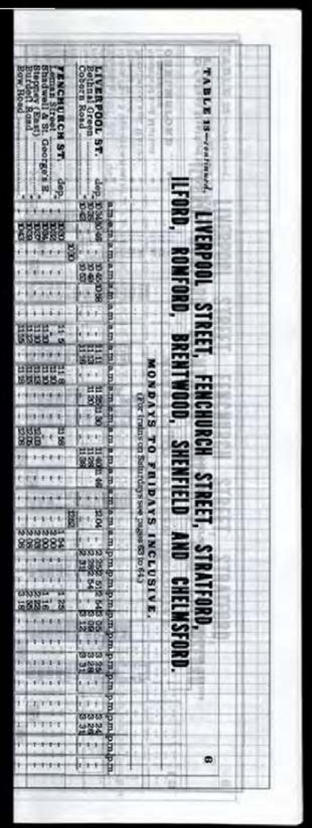
A3

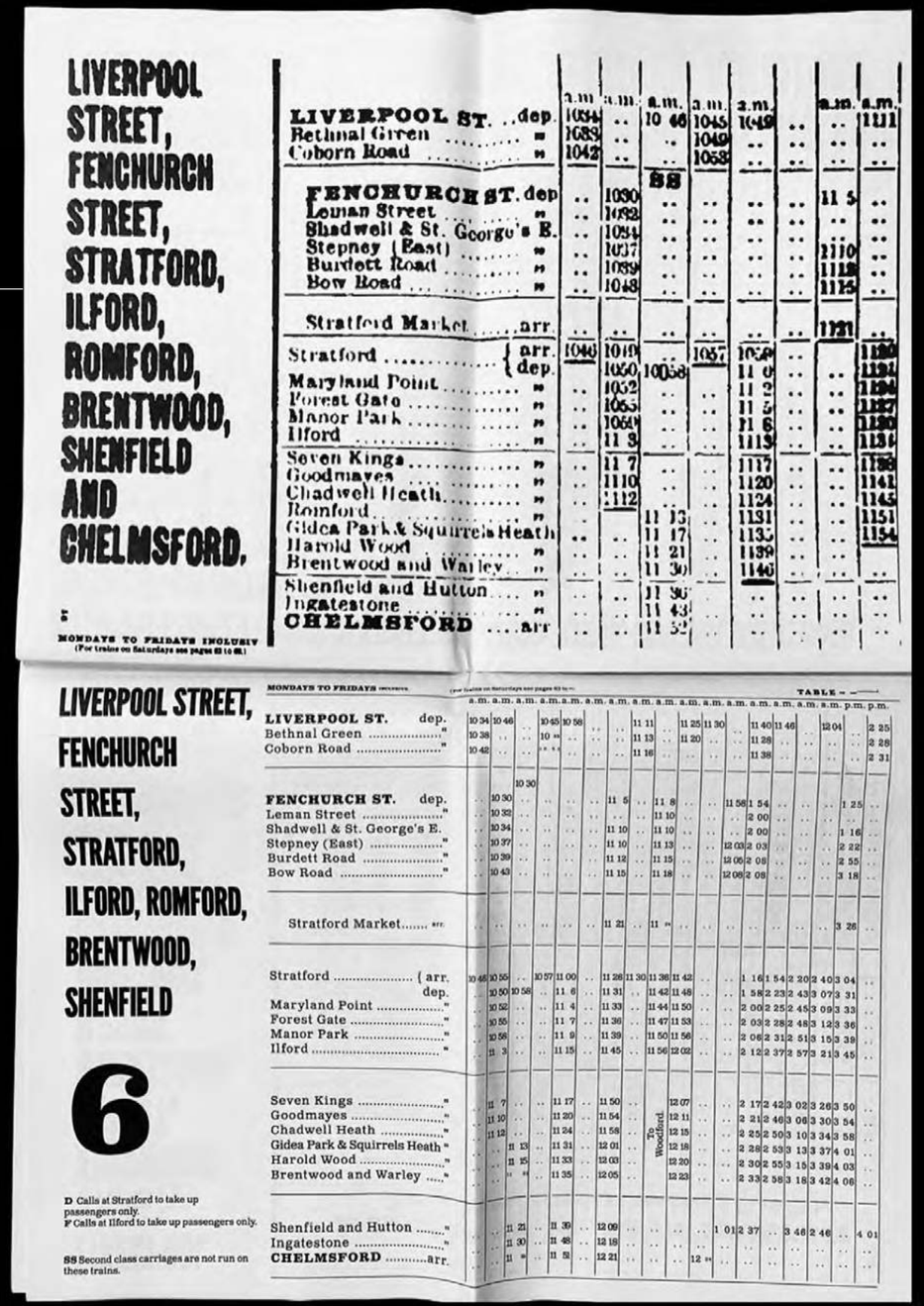
A4











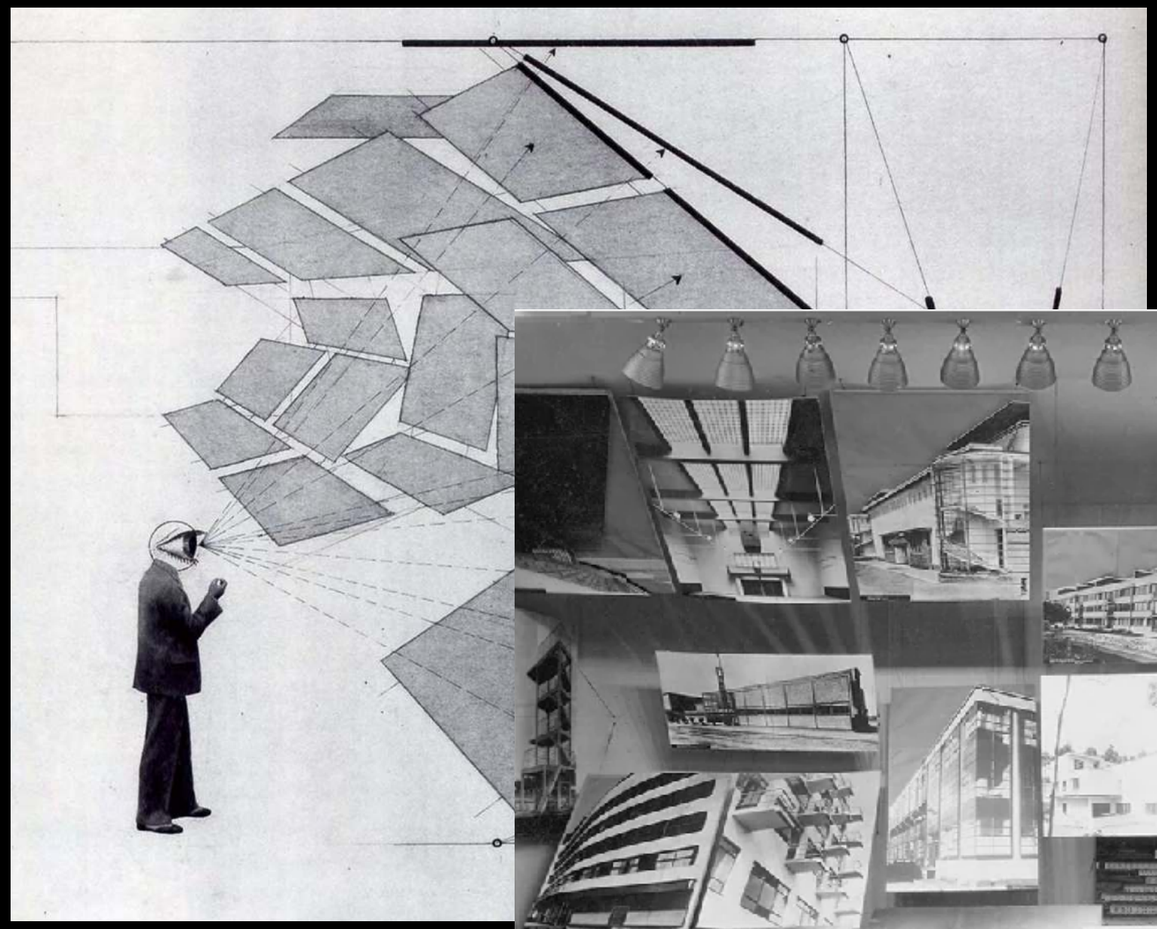
*Testing_* From screen to paper



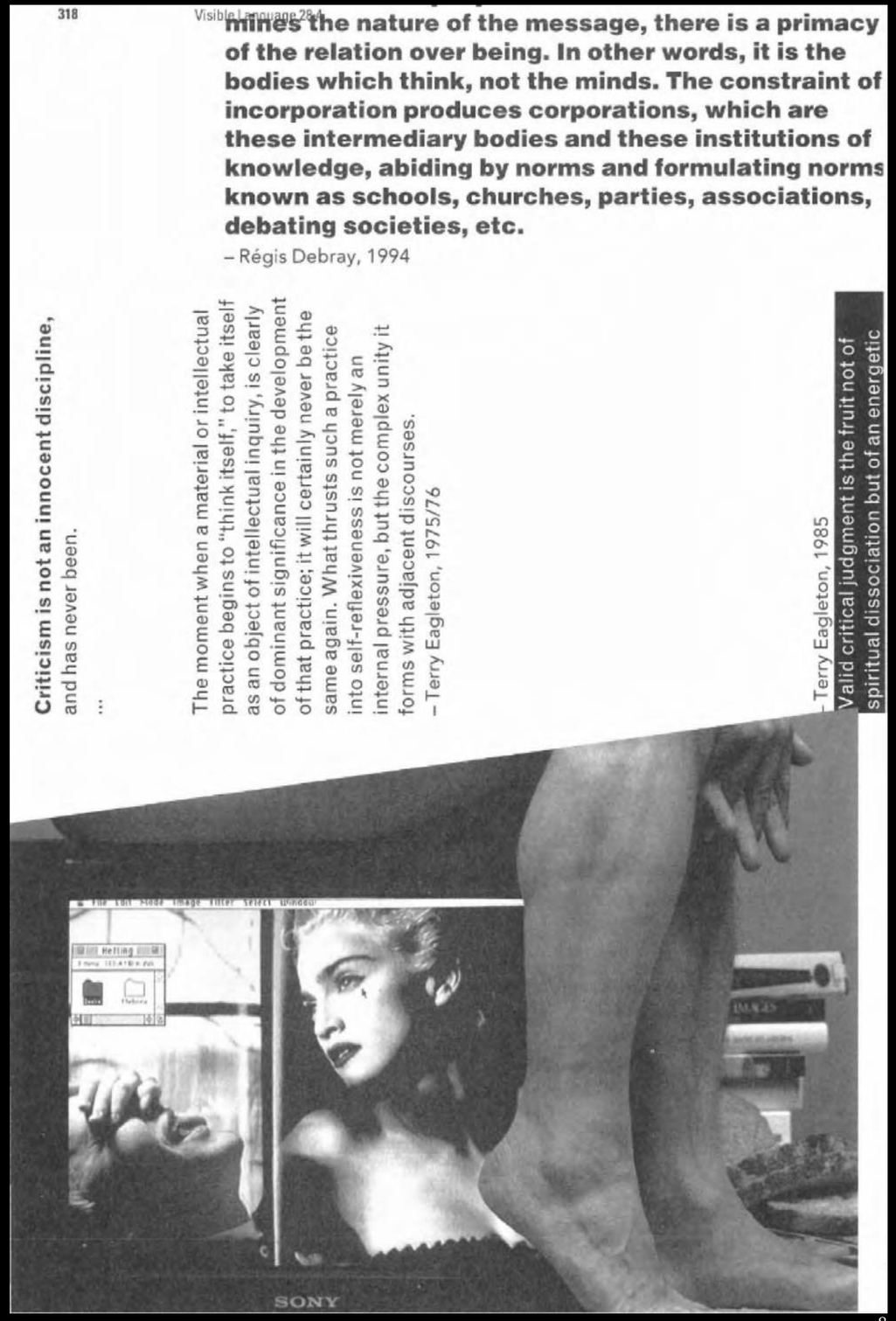
*Dialogue_* Two readings

Jan van Toorn, Design and Reflexivity (1994)

Paul Bailey read this work as information design;
Cyan, a Berlin studio, read it as composition.



Herbert Bayer, Field of Vision (1930)



The dialogue showed me that legibility is not a property of the information itself but is composed by information design, by how its parts are arranged, so I followed “position” as arrangement.

*Retrieval and collage_* Position as arrangement

"Position" as arrangement: a search led to a 1545 rearrangement of anatomical images, which I reedited to locate the designer as editor.

Following the anatomical figures, I found Geminus's 1545 rearrangement of Vesalius's 1543 woodcuts. Each plate can still be traced to its source, so I reedited it to locate the designer as editor.



Cambridge Dictionary

Found



NYPL collection



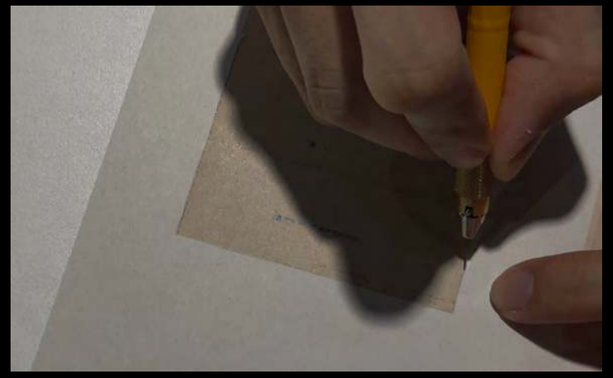
Vesalius, 1543

Reassembled

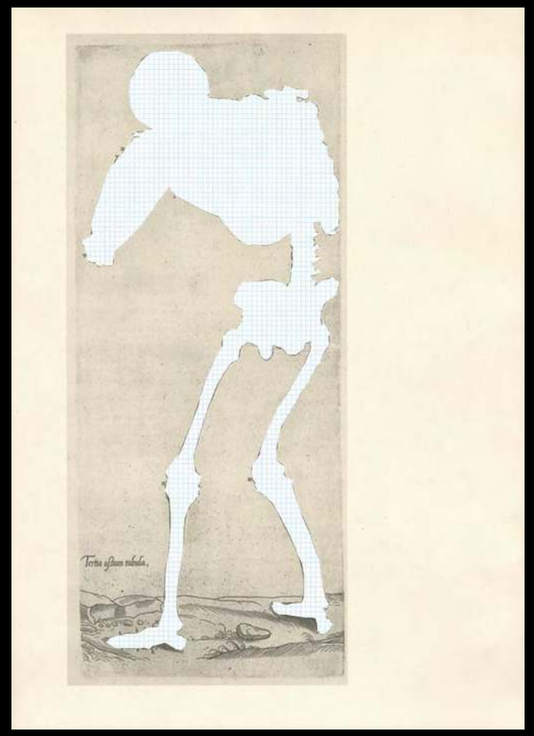


Geminus, 1545

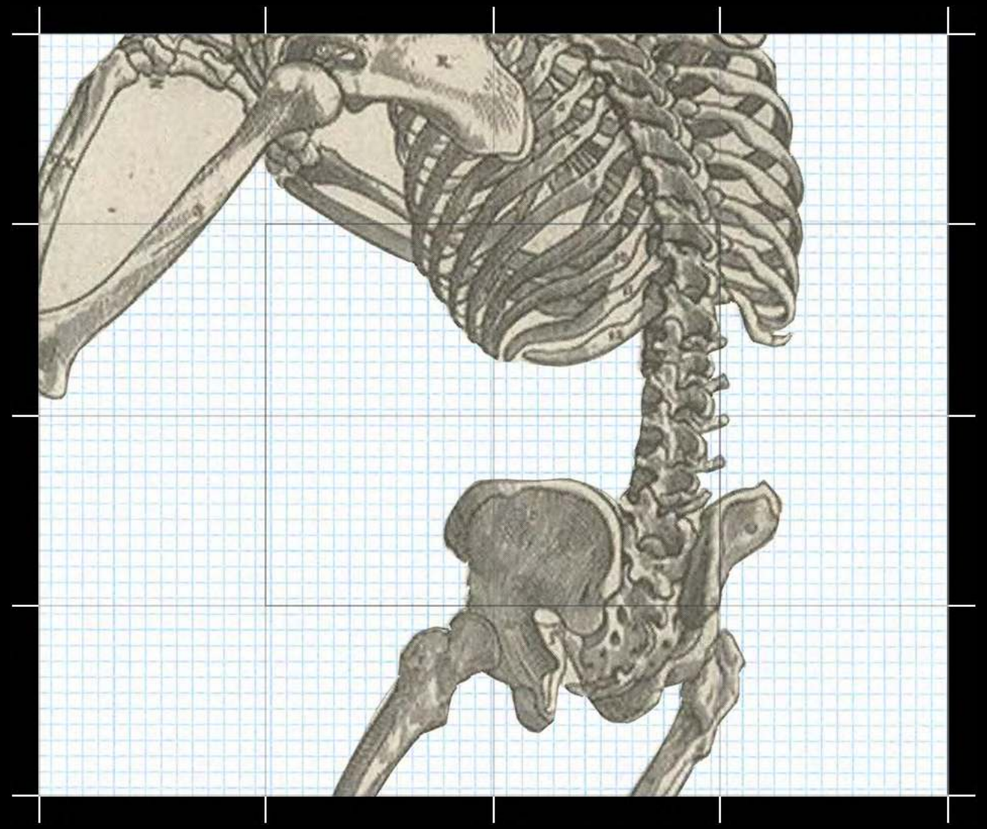
Each image is reproduced at a 1:1 scale, then printed, cropped, and left with the traces of its cropping, to observe the changes in their relationships.



Cutting



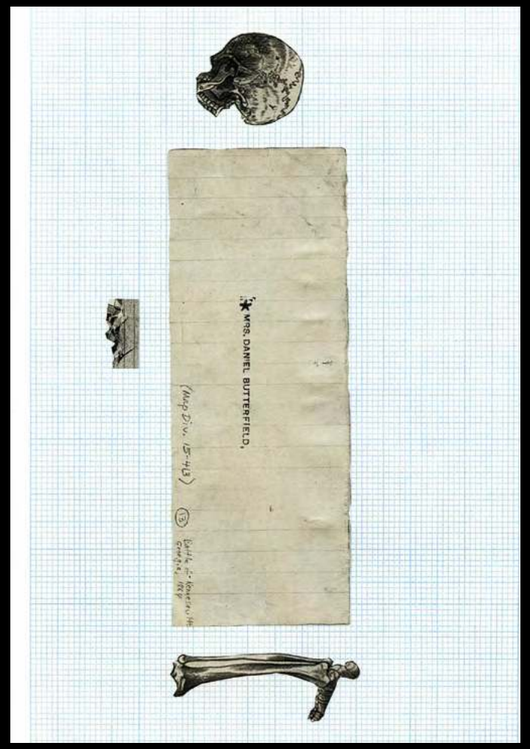
Remainder



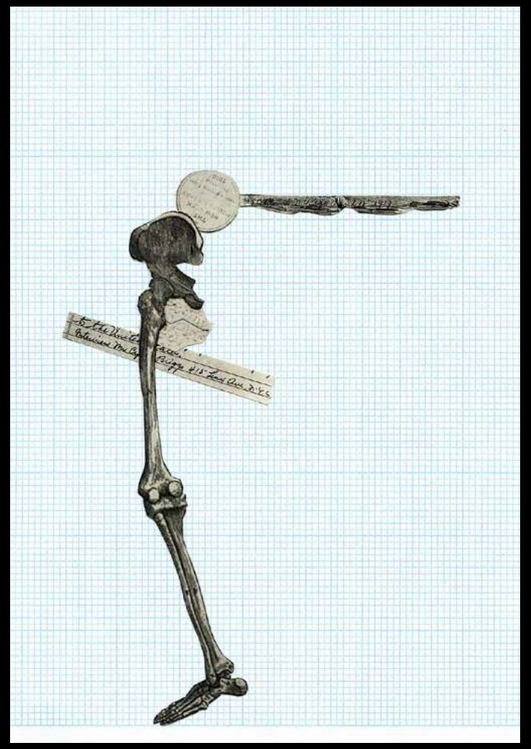
Tracing on grid tracing paper

Cut and collaged across the meanings of “position”: how does a new sense misread the original?









*Comparison_* An archive of changes

39 comparisons, 107 source pages, three libraries: every edit made legible.

Figures once pages apart now share one plate. I cut them from their original pages to trace what changed, the gaps they left and their ties to the text. What information does this grouping produce?



Vesalius / source pages

Historical Adaptation



Geminus / one plate

Original / detail

Remaining sheet

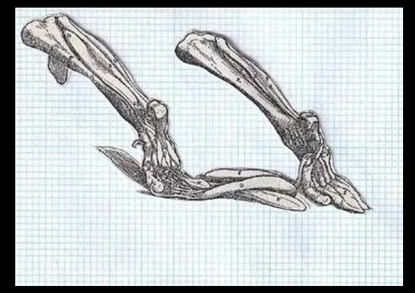
Removed image

My Adaptation

Legs

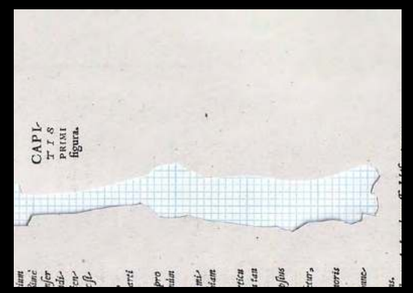


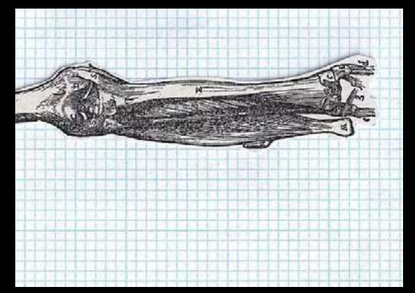




Arm
90° view



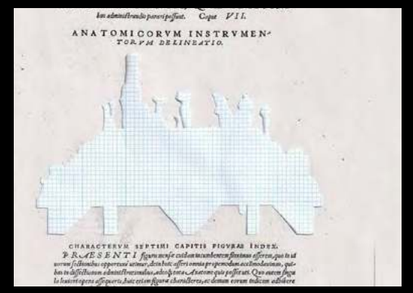


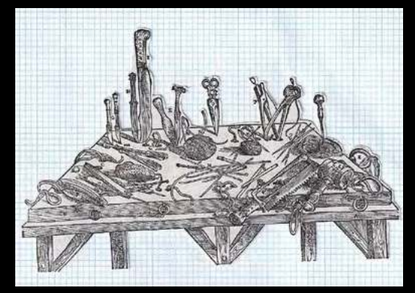


My Adaptation

Tools







A reader can select and rearrange the same fragment while keeping its source.
Each choice adds another position to the work.



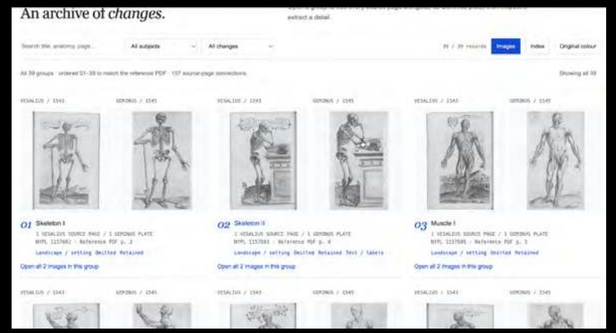
Vesalius / source pages

Historical Adaptation

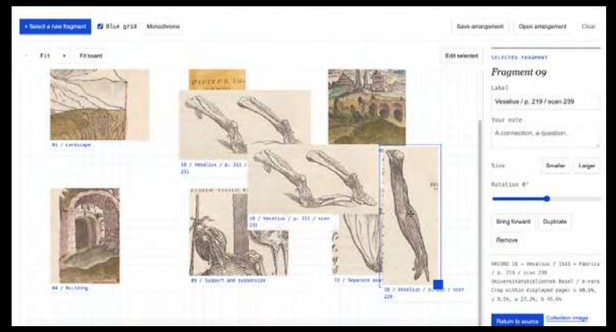


Geminus / copy plate

My Adaptation



Website Features: Archive



Website Features: Arrange



Website Features: Compare

Audience'sAdaptation

01 / Select



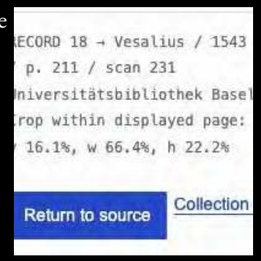
02 / Cut



03 / Arrange

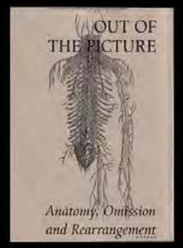


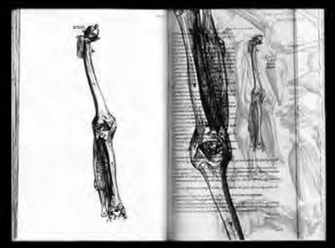
04 / Trace



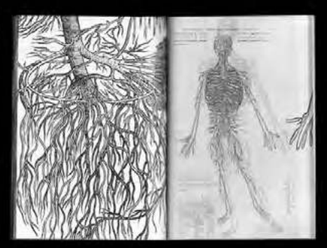
taogcd.github.io/out-of-the-picture


OUT OF
THE PICTURE
Anatomy, Omission
and Rearrangement


OUT OF
THE PICTURE
Anatomy, Omission
and Rearrangement



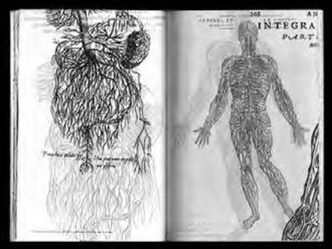

XX.
XXVII.

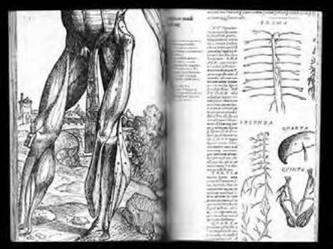


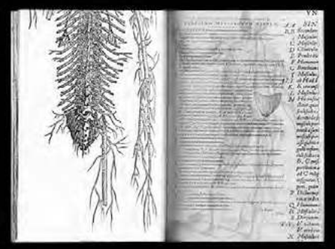


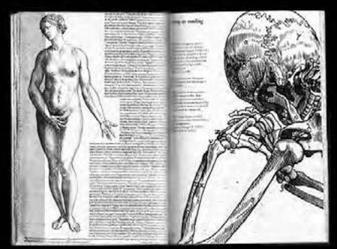





INTEGRA
PART.



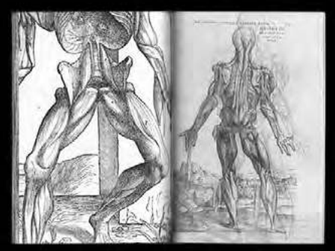






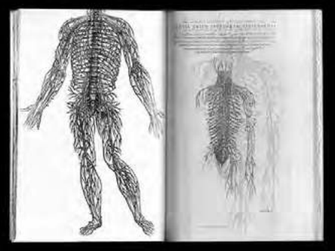




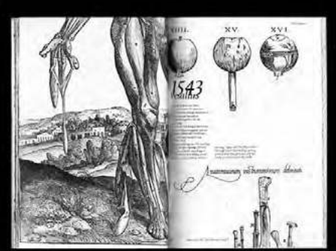


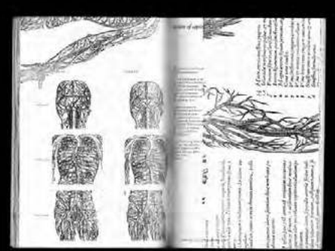









1543

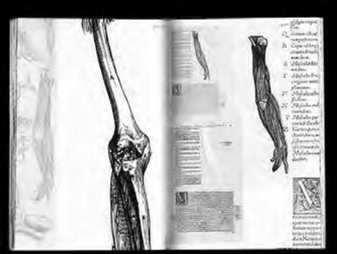




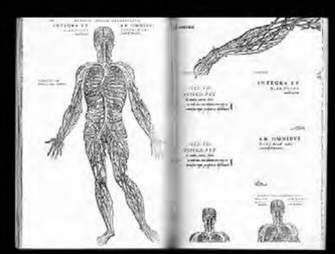

The body's position.
The image's position.
The editor's position.

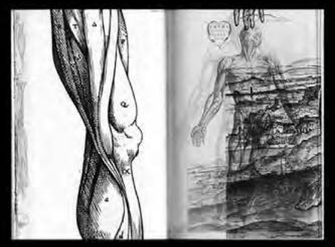

ANATOMICORVM INSTRVMEN-

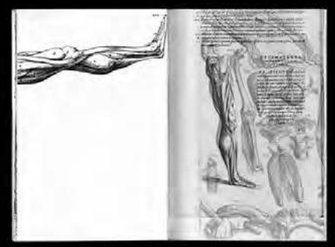




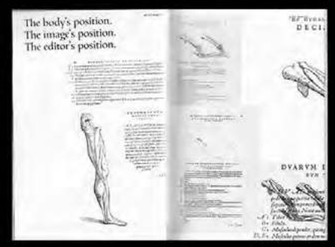


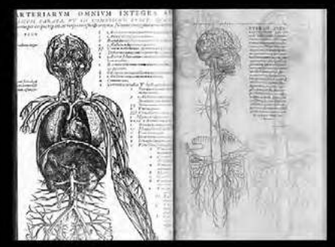







1545
Geminus
Compendiosa totius
anatomie delineatio


The body's position.
The image's position.
The editor's position.







Weakness: any material would have done. Where did I stand?

*Turning point_* Back to the grid

My position lies not in the material but in the frame that decides where things go: the grid.

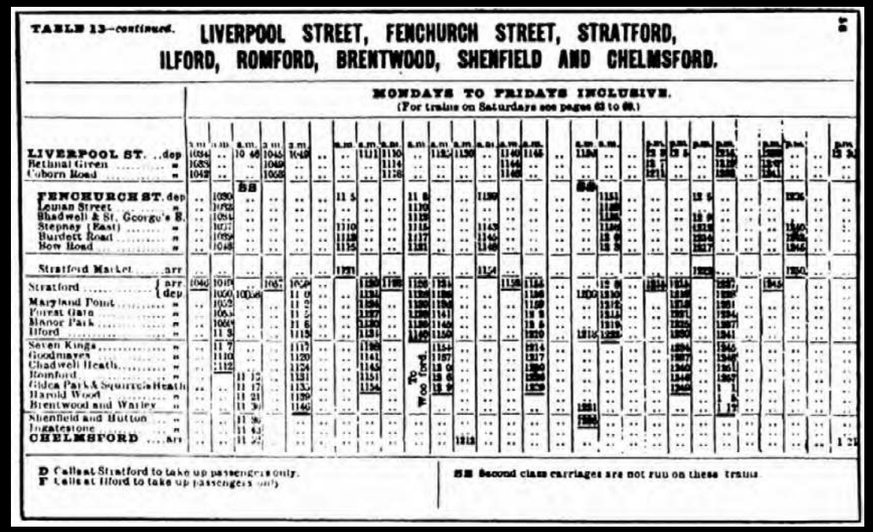


TABLE 13—*continued.* LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages 62 to 68.)

LIVERPOOL ST. ..dep
Bethnal Green ..
Coborn Road ..
FENCHURCH ST. dep
Leman Street ..
Shadwell & St. George's E. ..
Stepney (East) ..
Burdett Road ..
Bow Road ..
Stratford Market ..arr
Stratford ..arr / dep
Maryland Point ..
Forest Gate ..
Manor Park ..
Ilford ..
Seven Kings ..
Goodmayes ..
Chadwell Heath ..
Romford ..
Gidea Park & Squirrels Heath ..
Harold Wood ..
Brentwood and Warley ..
Shenfield and Hutton ..
Ingatestone ..
CHELMSFORD ..arr

To Woodford.

D Calls at Stratford to take up passengers only.
F Calls at Ilford to take up passengers only.

SS Second class carriages are not run on these trains.

Kinross, R. (1985) *The rhetoraic of neutrality,*
Fig. 1: the 1928 LNER timetable

Bureaucracy

By dividing mental labor, blanks make bureaucracy, directing and delimiting fill-in entries that form the incremental expressions of the modern, bureaucratic self. And it should be clear that, as the instruments of innumerable petty bureaucracies, blank forms and other job printing, like paperwork generally, cannot inspire the sorts of readerly subjectivity that Poe—through Dupin—calls "identification" and "identifying with." Indeed, who ever really reads receipts, bills, tickets, bonds, or certificates? Yes, there is writing printed on them, and filling in blanks requires attention to prompts, but their textual qualities have become "naturalized" through the social processes that have made them useful as the impersonal instruments they are, so that the printing on them "has seemed to disappear."[24] They wouldn't function if they didn't have printing on them, yet few people would describe their functioning in terms of reading, unless in the context of controversy, where a counterfeit is discovered or a lawsuit seems likely; then both reading and forensic analysis enter the picture.[25] Notably, whatever reading is entailed by genres like bills of lading and stock transfers, it is not reading that has very much to do with the sort of readerly subjec-

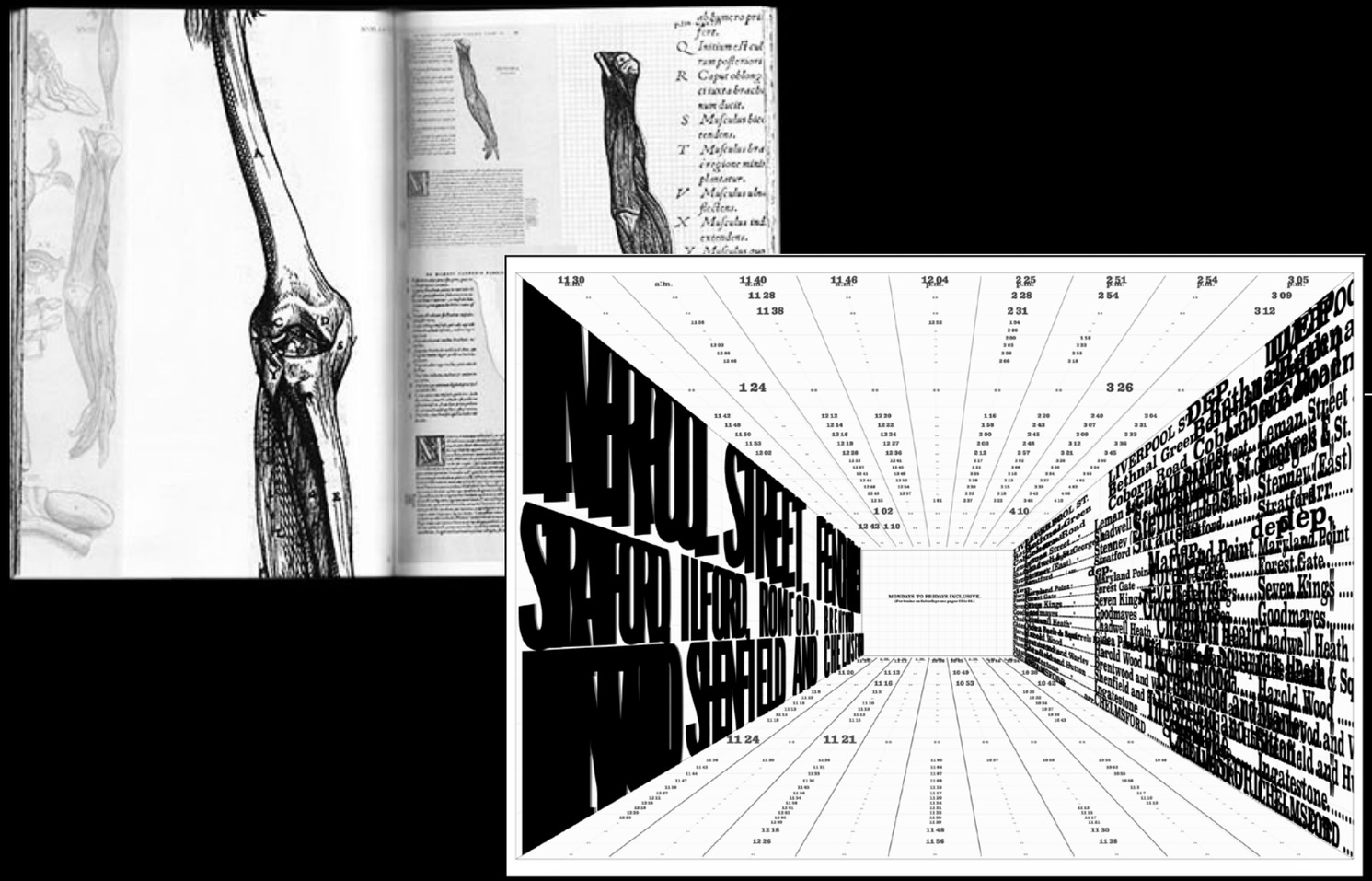
30 ⋮ CHAPTER ONE

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Gitelman, L. (2014) *Paper Knowledge*

Some plan the grid; others use it. A designer stands on both sides.

*Look back_* Legibility



legibility

*Grid system_* Fitted rather than read

Legibility: a tool in design, a condition in administration.
A grid is fitted rather than read.

*Meaning of **legibility** in English*

legibility

noun [U]

UK /ˌledʒ.əˈbɪl.ə.ti/ US /ˌledʒ.əˈbɪl.ə.ṭi/

Add to word list

the fact of being easy to read, or the degree to which something is easy to read:

- *Our job is to ensure the accuracy and legibility of clinical documents.*
- *Factors such as type design and layout affect the legibility of the text.*

Opposite

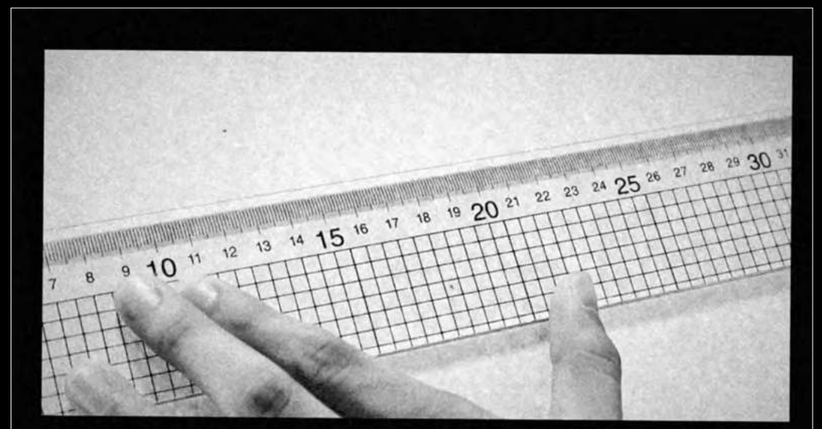
illegibility

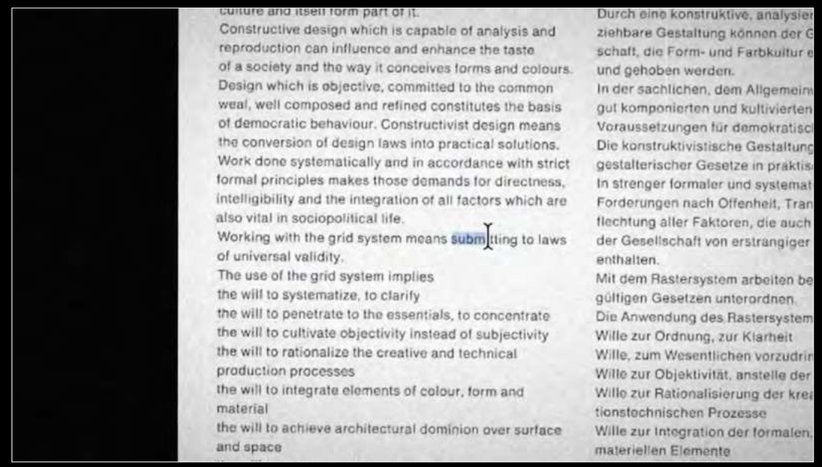
Meaning of legibility in English

The more I examined these efforts at sedentarization, the more I came to see them as a state's attempt to make a society legible, to arrange the population in ways that simplified the classic state functions of taxation, conscription, and prevention of rebellion. Having begun to think in these terms, I began to see legibility as a central problem in statecraft. The premodern state was, in many crucial respects, partially blind; it knew precious little about its subjects, their wealth, their landholdings and yields, their location, their very identity. It lacked anything like a detailed "map" of its terrain and its people. It lacked, for the most part, a measure, a metric, that would allow it to "translate" what it knew into a common standard necessary for a synoptic view. As a result, its interventions were often crude and self-defeating.

Scott (1998) *Seeing Like a State*

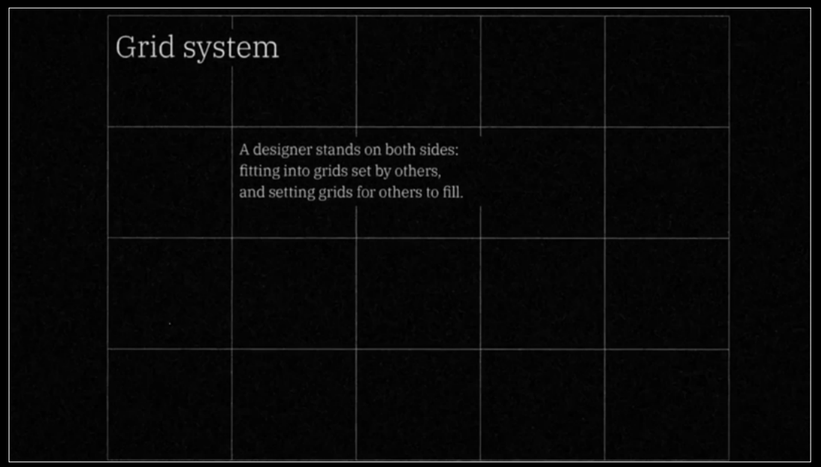
*Summarize_* Video





culture and itself form part of it.
Constructive design which is capable of analysis and reproduction can influence and enhance the taste of a society and the way it conceives forms and colours. Design which is objective, committed to the common weal, well composed and refined constitutes the basis of democratic behaviour. Constructivist design means the conversion of design laws into practical solutions. Work done systematically and in accordance with strict formal principles makes those demands for directness, intelligibility and the integration of all factors which are also vital in sociopolitical life.
Working with the grid system means submitting to laws of universal validity.
The use of the grid system implies
the will to systematize, to clarify
the will to penetrate to the essentials, to concentrate
the will to cultivate objectivity instead of subjectivity
the will to rationalize the creative and technical production processes
the will to integrate elements of colour, form and material
the will to achieve architectural dominion over surface and space

Durch eine konstruktive, analysier
ziehbare Gestaltung können der G
schaft, die Form- und Farbkultur e
und gehoben werden.
In der sachlichen, dem Allgemein
gut komponierten und kultivierten
Voraussetzungen für demokratisc
Die konstruktivistische Gestaltung
gestalterischer Gesetze in praktis
In strenger formaler und systemat
Forderungen nach Offenheit, Tran
flechtung aller Faktoren, die auch
der Gesellschaft von erstrangiger
enthalten.
Mit dem Rastersystem arbeiten be
gültigen Gesetzen unterordnen.
Die Anwendung des Rastersystem
Wille zur Ordnung, zur Klarheit
Wille, zum Wesentlichen vorzudri
Wille zur Objektivität, anstelle der
Wille zur Rationalisierung der krea
tionstechnischen Prozesse
Wille zur Integration der formalen,
materiellen Elemente



Which elements in the design language of the grid system itself embody bureaucracy, and which leave room for the designer's discretion?
Now built into design software, how far do grids shape how users work and see?