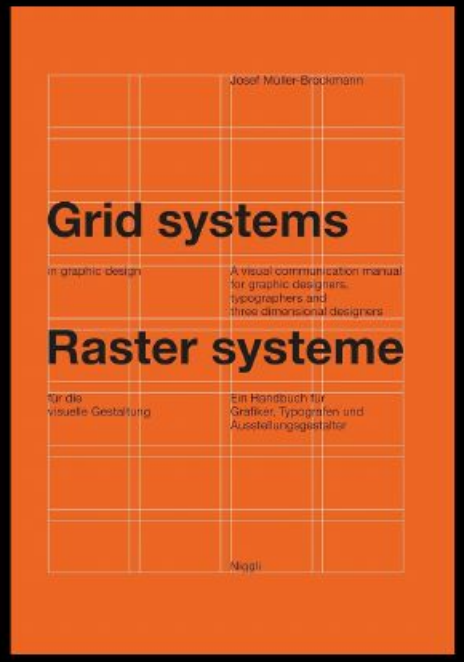
Unit 02
Symposium



Fitted Rather Than Read

*Starting point_* Swiss modernist grid can design be neutral?

I began Unit 2 by asking whether design can be **neutral**.
Müller-Brockmann presents the grid as an objective ordering system, 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.



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

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.

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 Wir-

10

My first test **fixed the source** and **changed the grid**. I took the **1928 railway timetable** from Kinross's The Rhetoric of Neutrality.

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 [illegible] 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).

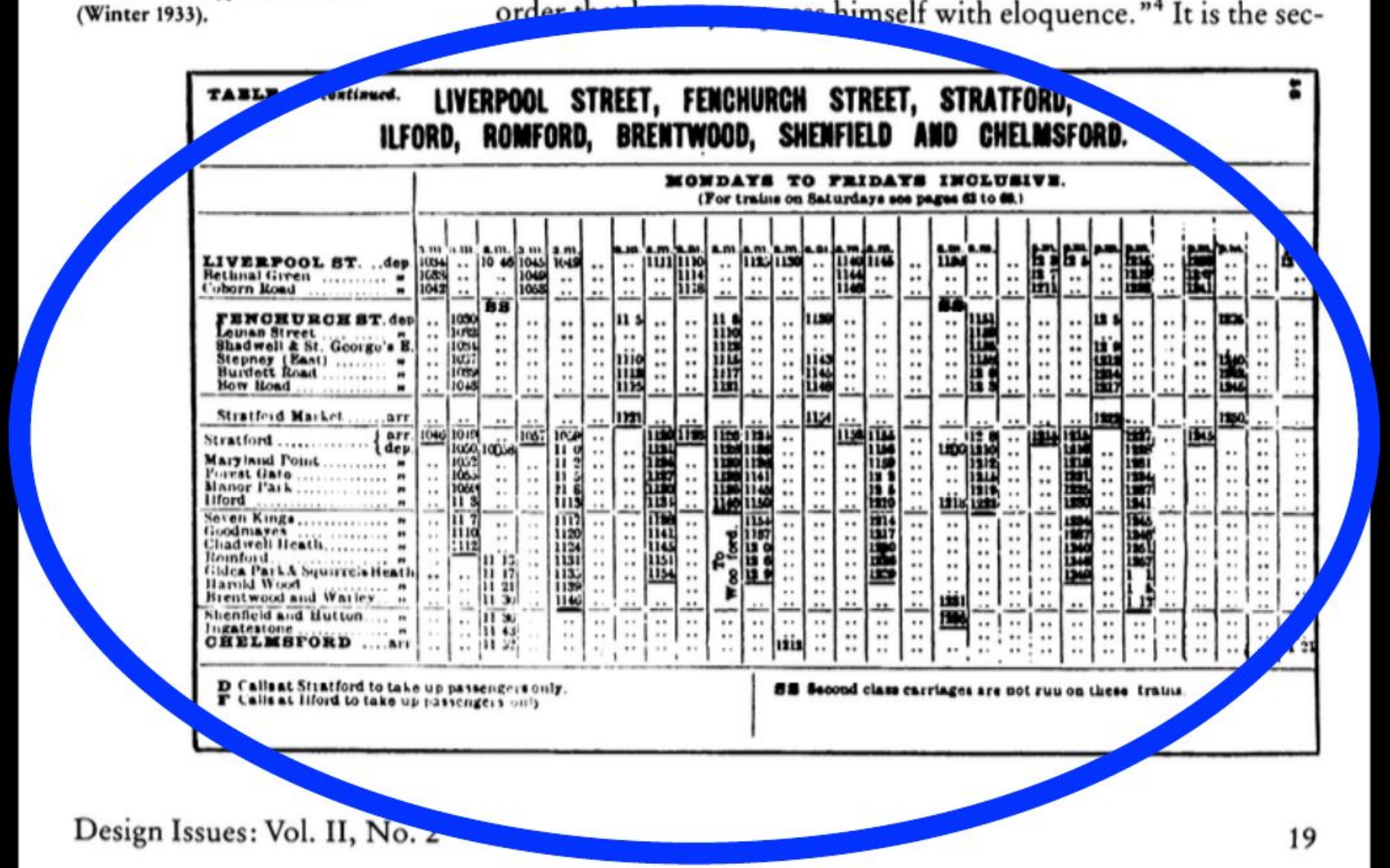


TABLE [illegible] continued.

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

MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages 63 to 68.)

LIVERPOOL ST. ..dep	1034	..	10 46	1045	1048	..	..	1113	1130	..	1152	1150	..	1140	1145	..	1154	..	..	12 5	..	..	1226	..	..	1240	..	..	1245	..	..
Bethnal Green .. "	1038	..	..	1049	..	..	..	1114	..	..	..	..	..	1144	..	..	1155	..	..	12 6	..	..	1227	..	..	1241	..	..	1246	..	..
Coborn Road .. "	1042	..	..	1053	..	..	..	1118	..	..	..	..	..	1148	..	..	1159	..	..	12 10	..	..	1231	..	..	1245	..	..	1250	..	..
FENCHURCH ST. dep	..	1030	SS	..	..	..	11 5	..	..	11 5	..	..	1130	..	..	SS	1141	..	..	12 5	..	..	1236	..	..	1250	..	..	1255	..	..
Leman Street .. "	..	1032	..	..	..	..	..	..	..	11 7	..	..	1132	..	..	..	1143	..	..	12 7	..	..	1238	..	..	1252	..	..	1257	..	..
Shadwell & St. George's E. .. "	..	1034	..	..	..	..	..	..	..	11 9	..	..	1134	..	..	..	1145	..	..	12 9	..	..	1240	..	..	1254	..	..	1259	..	..
Stepney (East) .. "	..	1037	..	..	..	..	1110	..	..	11 12	..	..	1137	..	..	..	1148	..	..	12 12	..	..	1243	..	..	1257	..	..	1302	..	..
Burdett Road .. "	..	1039	..	..	..	..	1113	..	..	11 15	..	..	1140	..	..	..	1151	..	..	12 15	..	..	1246	..	..	1300	..	..	1305	..	..
Bow Road .. "	..	1043	..	..	..	..	1118	..	..	11 19	..	..	1144	..	..	..	1155	..	..	12 19	..	..	1250	..	..	1304	..	..	1309	..	..
Stratford Market .. arr	..	..	..	..	..	..	1121	..	..	11 22	..	..	1147	..	..	..	1158	..	..	12 22	..	..	1253	..	..	1307	..	..	1312	..	..
Stratford .. { arr	1046	1049	..	1057	1058	..	1125	1130	1135	11 26	1134	..	1151	1154	..	1202	1205	..	..	12 26	1230	..	1257	1314	..	1311	1316	..	1316	1320	..
Stratford .. { dep	..	1050	10058	..	11 0	..	1127	1134	1136	11 28	1136	1140	1153	1156	1200	1204	1207	..	..	12 28	1232	..	1259	1316	..	1313	1318	..	1318	1322	..
Maryland Point .. "	..	1052	..	..	11 2	..	1129	1136	1138	11 30	1138	1142	1155	1158	1202	1206	1209	..	..	12 30	1234	..	1301	1318	..	1315	1320	..	1320	1324	..
Forest Gate .. "	..	1054	..	..	11 4	..	1131	1138	1140	11 32	1140	1144	1157	1200	1204	1208	1211	..	..	12 32	1236	..	1303	1320	..	1317	1322	..	1322	1326	..
Manor Park .. "	..	1056	..	..	11 6	..	1133	1140	1142	11 34	1142	1146	1159	1202	1206	1210	1213	..	..	12 34	1238	..	1305	1322	..	1319	1324	..	1324	1328	..
Ilford .. "	..	11 0	..	..	11 10	..	1137	1144	1146	11 38	1146	1150	1203	1206	1210	1214	1217	..	..	12 38	1242	..	1309	1326	..	1323	1328	..	1328	1332	..
Seven Kings .. "	..	11 7	..	..	11 17	..	1144	1151	1153	11 45	1153	1157	1210	1213	1217	1221	1224	..	..	12 45	1249	..	1316	1333	..	1330	1335	..	1335	1339	..
Goodmayes .. "	..	1110	..	..	11 20	..	1147	1154	1156	11 48	1156	1200	1213	1216	1220	1224	1227	..	..	12 48	1252	..	1319	1336	..	1333	1338	..	1338	1342	..
Chadwell Heath .. "	..	1112	..	..	11 24	..	1151	1158	1200	11 52	1200	1204	1217	1220	1224	1228	1231	..	..	12 52	1256	..	1323	1340	..	1337	1342	..	1342	1346	..
Romford .. "	..	..	11 12	..	11 31	..	1158	1205	1207	11 59	1207	1211	1224	1227	1231	1235	1238	..	..	12 59	1303	..	1330	1347	..	1344	1349	..	1349	1353	..
Gidea Park & Squirrels Heath .. "	..	..	11 17	..	11 36	..	1203	1210	1212	12 4	1212	1216	1229	1232	1236	1240	1243	..	..	1 4	1308	..	1335	1352	..	1349	1354	..	1354	1358	..
Harold Wood .. "	..	..	11 21	..	11 40	..	1207	1214	1216	12 8	1216	1220	1233	1236	1240	1244	1247	..	..	1 8	1312	..	1339	1356	..	1353	1358	..	1358	1402	..
Brentwood and Warley .. "	..	..	11 30	..	11 49	..	1216	1223	1225	12 17	1225	1229	1242	1245	1249	1253	1256	..	..	1 17	1321	..	1348	1405	..	1402	1407	..	1407	1411	..
Shenfield and Hutton .. "	..	..	11 36	..	11 55	..	1222	1229	1231	12 23	1231	1235	1248	1251	1255	1259	1302	..	..	1 23	1327	..	1354	1411	..	1408	1413	..	1413	1417	..
Ingatestone .. "	..	..	11 43	..	12 2	..	1229	1236	1238	12 30	1238	1242	1255	1258	1302	1306	1309	..	..	1 30	1334	..	1401	1418	..	1415	1420	..	1420	1424	..
CHELMSFORD .. arr	..	..	11 57	..	12 16	..	1243	1250	1252	12 44	1252	1256	1309	1312	1316	1320	1323	..	..	1 44	1348	..	1415	1432	..	1429	1434	..	1434	1438	..

D Call at Stratford to take up passengers only.
F Call 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

*Testing_* Fix the source, change the grid

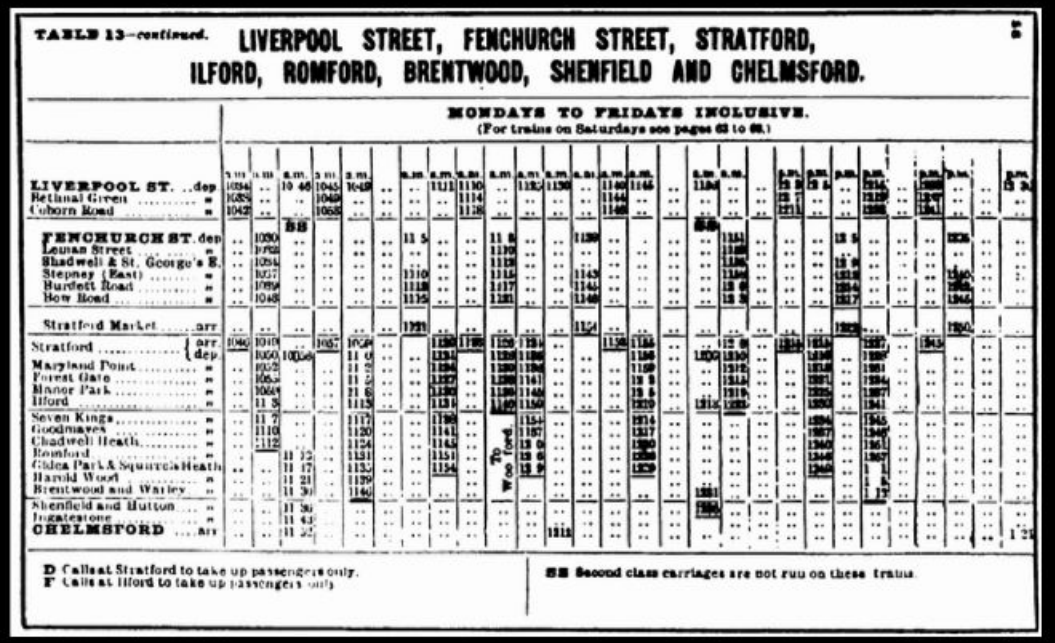


TABLE 13—*continued.*

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

MONDAYS TO FRIDAYS INCLUSIVE.

(For trains on Saturdays see pages 63 to 66.)

LIVERPOOL ST. ..dep	1034	..	10 46	1045	1048	..	..	1111	1116	..	1132	1136	..	1146	1146	..	1154	..	..	12 8	12 8	..	1214	..	..	1224	..	..	1234	..	..	12 30
Bethnal Green ..... "	1038	..	..	1049	..	..	..	..	1120	..	..	..	..	1144	..	..	..	..	..	12 11	..	..	1218	..	..	1228	..	..	1238	..	..	..
Coborn Road ..... "	1042	..	..	1053	..	..	..	..	1124	..	..	..	..	1148	..	..	..	..	..	12 15	..	..	1222	..	..	1232	..	..	1242	..	..	..
			SS																	SS											
FENCHURCH ST. dep	..	1090	..	..	..	..	11 5	..	..	11 8	..	..	1139	..	..	..	1151	..	..	12 45	..	..	1255	..	..	1305	..	..	1315	..	..	1330
Leman Street ..... "	..	1092	..	..	..	..	..	..	..	1130	..	..	..	..	..	..	1153	..	..	12 47	..	..	1257	..	..	1307	..	..	1317	..	..	1332
Shadwell & St. George's E. "	..	1094	..	..	..	..	..	..	..	1132	..	..	..	..	..	..	1155	..	..	12 49	..	..	1259	..	..	1309	..	..	1319	..	..	1334
Stepney (East) ..... "	..	1097	..	..	..	..	1110	..	..	1135	..	..	1145	..	..	..	1158	..	..	12 52	..	..	1302	..	..	1312	..	..	1322	..	..	1337
Burdett Road ..... "	..	1099	..	..	..	..	1113	..	..	1137	..	..	1147	..	..	..	1200	..	..	12 54	..	..	1304	..	..	1314	..	..	1324	..	..	1339
Bow Road ..... "	..	1045	..	..	..	..	1115	..	..	1139	..	..	1149	..	..	..	1202	..	..	12 56	..	..	1307	..	..	1317	..	..	1327	..	..	1342
Stratford Market ..... arr	..	..	..	..	..	..	1121	..	..	..	..	..	1154	..	..	..	1208	..	..	1 2	..	..	1313	..	..	1323	..	..	1333	..	..	1348
Stratford ..... { arr	1046	1049	..	1057	1058	..	..	1126	1126	1129	1131	..	..	1156	1156	..	1205	..	..	12 58	12 58	..	1307	..	..	1317	..	..	1327	..	..	1342
dep	..	1050	10[illegible]	..	11 0	..	..	1128	1128	1131	1133	..	..	1158	1158	..	1207	..	..	1 0	1 0	..	1309	..	..	1319	..	..	1329	..	..	1344
Maryland Point ..... "	..	1053	..	..	11 3	..	..	1131	1131	1134	1136	..	..	1201	1201	..	1210	..	..	1 3	1 3	..	1312	..	..	1322	..	..	1332	..	..	1347
Forest Gate ..... "	..	1056	..	..	11 6	..	..	1134	1134	1137	1139	..	..	1204	1204	..	1213	..	..	1 6	1 6	..	1315	..	..	1325	..	..	1335	..	..	1350
Manor Park ..... "	..	1059	..	..	11 9	..	..	1137	1137	1140	1142	..	..	1207	1207	..	1216	..	..	1 9	1 9	..	1318	..	..	1328	..	..	1338	..	..	1353
Ilford ..... "	..	1103	..	..	11 13	..	..	1141	1141	1144	1146	..	..	1211	1211	..	1220	..	..	1 13	1 13	..	1322	..	..	1332	..	..	1342	..	..	1357
Seven Kings ..... "	..	1107	..	..	1117	..	..	1145	1145	1148	1150	..	..	1215	1215	..	1224	..	..	1 17	1 17	..	1326	..	..	1336	..	..	1346	..	..	1401
Goodmayes ..... "	..	1110	..	..	1120	..	..	1148	1148	1151	1153	..	..	1218	1218	..	1227	..	..	1 20	1 20	..	1329	..	..	1339	..	..	1349	..	..	1404
Chadwell Heath ..... "	..	1112	..	..	1124	..	..	1151	1151	1154	1156	..	..	1221	1221	..	1230	..	..	1 23	1 23	..	1332	..	..	1342	..	..	1352	..	..	1407
Romford ..... "	..	..	11 12	..	1131	..	..	1158	1158	1201	1203	..	..	1228	1228	..	1237	..	..	1 30	1 30	..	1339	..	..	1349	..	..	1359	..	..	1414
Gidea Park & Squirrels Heath ..	..	..	11 17	..	1135	..	..	1202	1202	1205	1207	..	..	1232	1232	..	1241	..	..	1 34	1 34	..	1343	..	..	1353	..	..	2 3	..	..	1418
Harold Wood ..... "	..	..	11 21	..	1139	..	..	1206	1206	1209	1211	..	..	1236	1236	..	1245	..	..	1 38	1 38	..	1347	..	..	1357	..	..	2 7	..	..	1422
Brentwood and Warley ..	..	..	11 30	..	1146	..	..	1213	1213	1216	1218	..	..	1243	1243	..	1252	..	..	1 45	1 45	..	1354	..	..	2 4	..	..	2 14	..	..	1429
Shenfield and Hutton .... "	..	..	11 36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1 51	1 51	..	2 0	..	..	2 10	..	..	2 20	..	..	1435
Ingatestone ..... "	..	..	11 43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
CHELMSFORD ..... arr	..	..	11 52	..	..	..	..	..	..	..	..	1218	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1 32

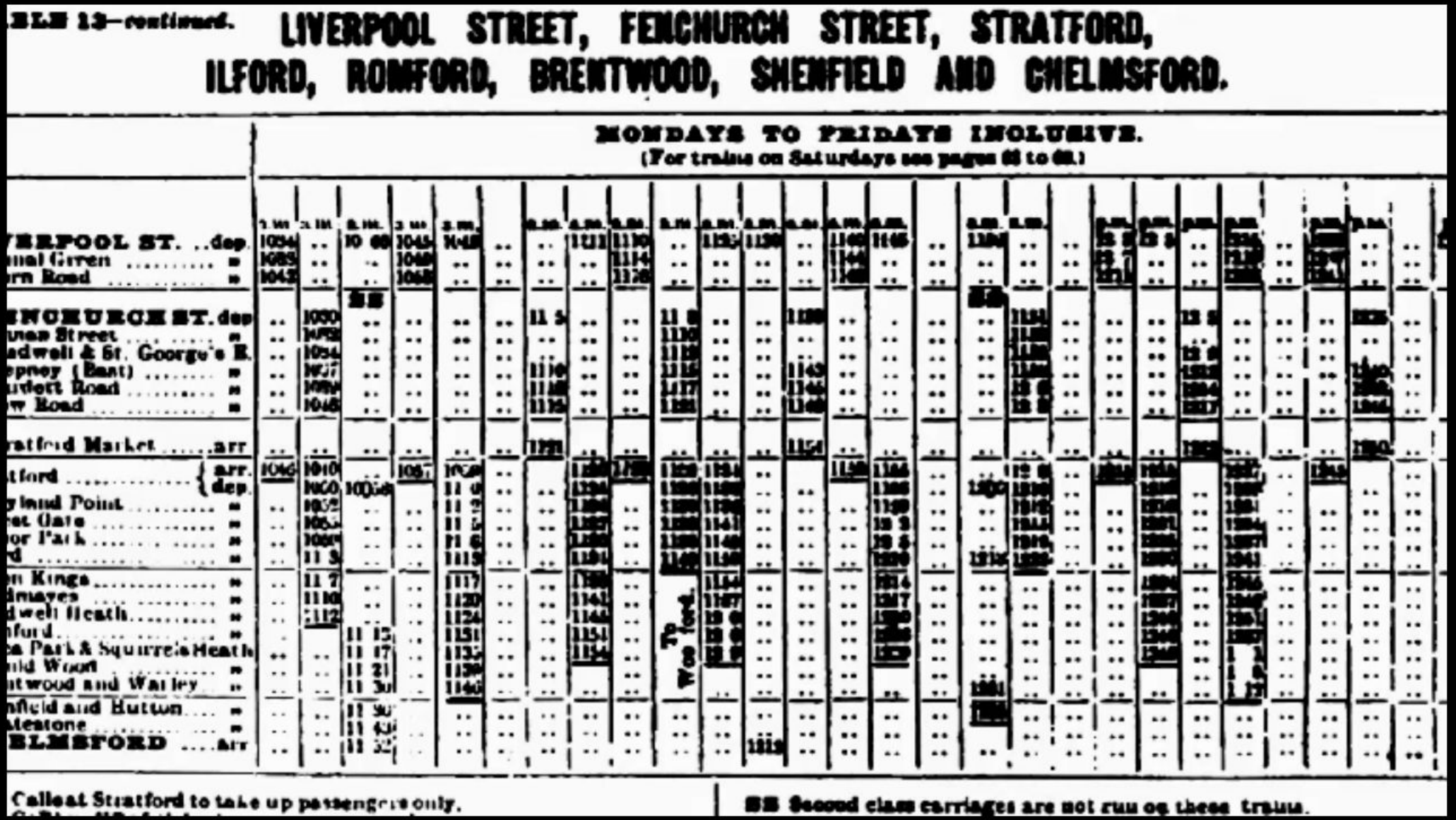
D Call at Stratford to take up passengers only.
F Calls at Ilford to take up passengers only.

SS Second class carriages are not run on these trains.

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



Draw Modern Grid



BLE 13—continued.

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

MONDAYS TO FRIDAYS INCLUSIVE.

(For trains on Saturdays see pages 68 to 69.)

VERPOOL ST. ..dep.
nal Green ..... "
rn Road ..... "

NCHURCH ST. dep
ueen Street ..... "
dwell & St. George's R. "
ppney (East) ..... "
rdett Road ..... "
w Road ..... "

ratford Market ..... arr

tford ..... { arr. / dep.
y Island Point ..... "
et Gate ..... "
or Park ..... "
d ..... "
n Kings ..... "
dmayes ..... "
dwell Heath ..... "
nford ..... "
a Park & Squirrels Heath "
ild Wood ..... "
ntwood and Warley ... "
nfield and Hutton .... "
lestone ..... "
ELMSFORD .... arr

To Woodford.

Calls at Stratford to take up passengers only.

SS Second class carriages are not run on these trains.

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

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.

tunately 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 [illegible] 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).

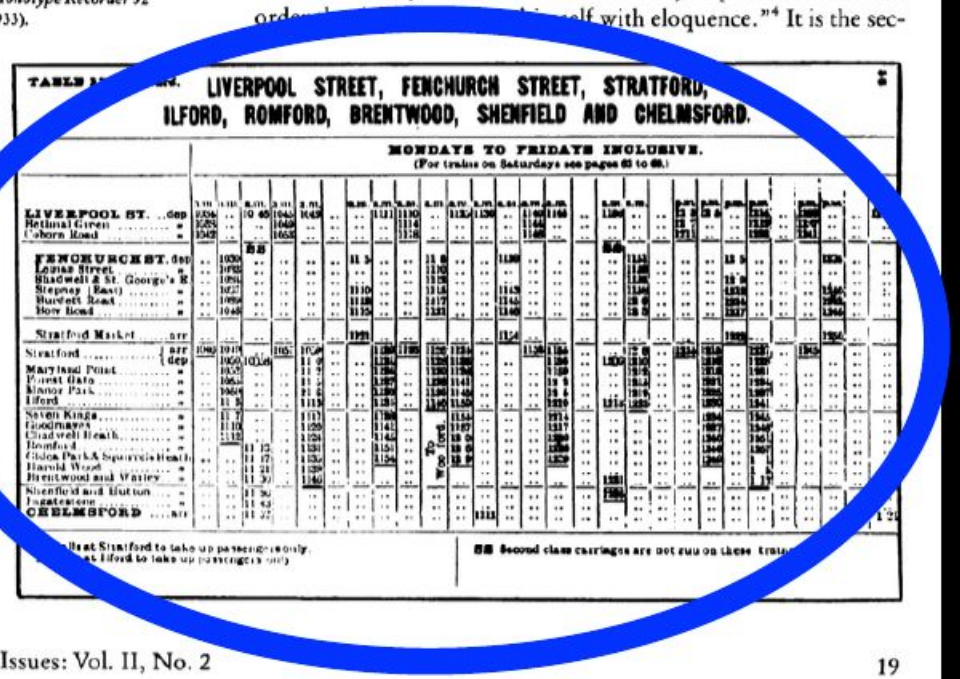


TABLE [illegible]. LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

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 ..."
Bladewell & St. George's E ..."
Stepney (East) ..."
Burdett Road ..."
Bow Road ..."

Stratford Market ..arr

Stratford ..... { arr / dep

Maryland Point ..."
Forest Gate ..."
Manor Park ..."
Ilford ..."

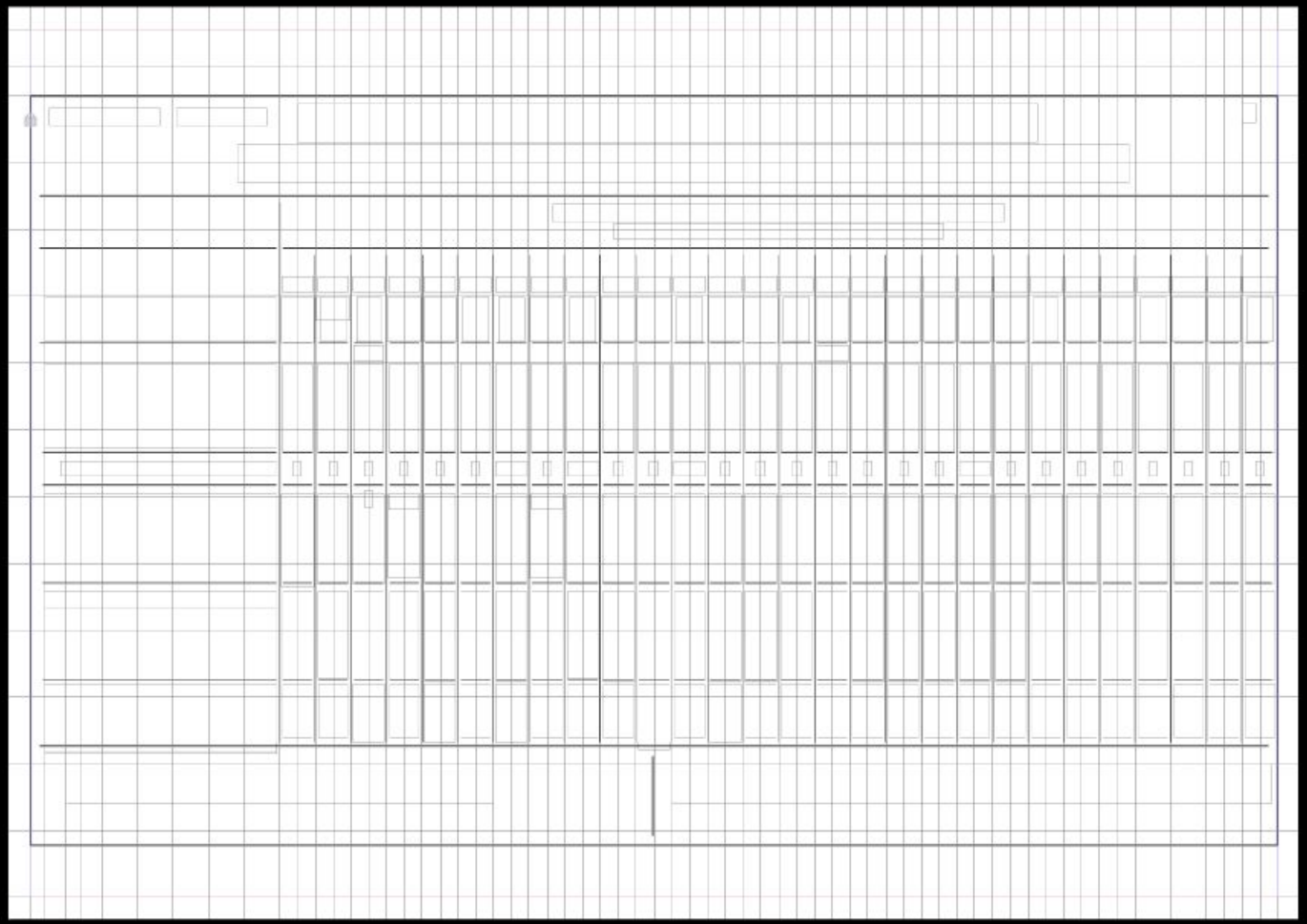
Seven Kings ..."
Goodmayes ..."
Chadwell Heath ..."
Romford ..."
Gidea Park & Squirrels Heath ..."
Harold Wood ..."
Brentwood and Warley ..."

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

[illegible] at Stratford to take up passengers only.
[illegible] at Ilford to take up passengers only.

SS Second class carriages are not run on these trains.

Modern Grid Translation



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).

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tunately 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 [illegible] 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).

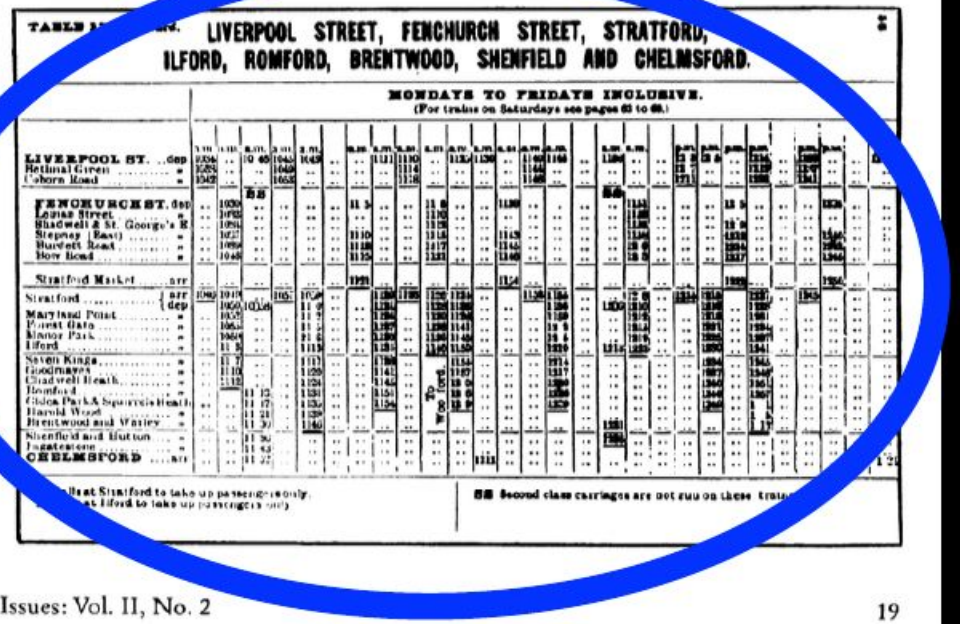


TABLE [illegible]—*continued.* LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages [illegible] to [illegible].)

LIVERPOOL ST. dep	1034	..	10 46	1046	1049	..	..	..	1111	1130	..	1134	1139	..	1149	1158	..	..	1204	..	..	1211	1230	..	..	1241	1249	..	..	1257	..	..	1 5
Bethnal Green "	1038	..	..	1050	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Coborn Road "	1042	..	..	1055	..	..	..	..	..	1138	..	..	..	..	..	1206	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
FENCHURCH ST. dep	..	1030	..	..	..	..	11 5	..	..	..	11 8	..	..	..	..	..	1130	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Leman Street "	..	1032	..	..	..	..	..	..	..	..	11 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shadwell & St. George's E. "	..	1034	..	..	..	..	11 10	..	..	..	11 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stepney (East) "	..	1037	..	..	..	..	11 10	..	..	..	11 13	..	..	..	1203	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Burdett Road "	..	1039	..	..	..	..	11 12	..	..	..	11 15	..	..	..	1205	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bow Road "	..	1043	..	..	..	..	11 15	..	..	..	11 18	..	..	..	1208	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stratford Market arr	..	..	..	..	..	..	11 21	..	..	11 24	..	..	1 24	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stratford arr	1040	1048	..	1057	1100	..	11 26	11 30	11 36	11 42	..	..	12 12	12 20	..	..	1 16	1 54	2 20	2 40	3 04	3 32	4 52	..	3 06	..	..	..	..	..	..	..	..	..
dep	..	1050	10 58	..	11 6	..	11 31	..	11 42	11 48	..	..	12 14	12 22	..	..	1 58	2 23	2 43	3 07	3 31	..	..	..	3 30	..	..	..	..	..	..	..	..	..
Maryland Point "	..	1052	..	..	11 4	..	11 33	..	11 44	11 50	..	..	12 16	12 24	..	..	2 00	2 25	2 45	3 09	3 33	..	..	..	3 33	..	..	..	..	..	..	..	..	..
Forest Gate "	..	1055	..	..	11 7	..	11 36	..	11 47	11 53	..	..	12 19	12 27	..	..	2 03	2 28	2 48	3 12	3 36	..	..	..	3 36	..	..	..	..	..	..	..	..	..
Manor Park "	..	1058	..	..	11 9	..	11 39	..	11 50	11 56	..	..	12 22	12 30	..	..	2 06	2 31	2 51	3 15	3 39	..	..	..	3 39	..	..	..	..	..	..	..	..	..
Ilford "	..	11 3	..	..	11 15	..	11 45	..	11 56	12 02	..	..	12 28	12 36	..	..	2 12	2 37	2 57	3 21	3 45	..	..	..	3 45	..	..	..	..	..	..	..	..	..
Seven Kings "	..	11 7	..	..	11 17	..	11 50	..	To Woodford	12 07	..	..	12 33	13 41	..	..	2 17	2 42	3 02	3 26	3 50	..	..	..	..	..	..	..	..	..	..	..	..	..
Goodmayes "	..	11 10	..	..	11 20	..	11 54	..		12 11	..	..	12 37	13 45	..	..	2 21	2 46	3 06	3 30	3 54	..	..	..	..	..	..	..	..	..	..	..	..	..
Chadwell Heath "	..	11 12	..	..	11 24	..	11 58	..		12 15	..	..	12 41	13 49	..	..	2 25	2 50	3 10	3 34	3 58	..	..	..	..	..	..	..	..	..	..	..	..	..
Gidea Park & Squirrels Heath "	..	..	11 13	..	11 31	..	12 01	..		12 18	..	..	12 44	13 32	..	..	2 28	2 53	3 13	3 37	4 01	..	..	..	..	..	..	..	..	..	..	..	..	..
Harold Wood "	..	..	11 15	..	11 33	..	12 03	..		12 20	..	..	12 46	12 54	..	..	2 30	2 55	3 15	3 39	4 03	..	..	..	..	..	..	..	..	..	..	..	..	..
Brentwood and Warley "	..	..	11 17	..	11 35	..	12 05	..		12 23	..	..	12 49	12 57	..	..	2 33	2 58	3 18	3 42	4 06	..	..	..	..	..	..	..	..	..	..	..	..	..
Shenfield and Hutton "	..	..	11 21	..	11 39	..	12 09	..	..	..	..	..	12 53	..	1 01	..	2 37	3 02	3 22	3 46	4 10	..	..	..	..	..	..	..	..	..	..	..	..	..
Ingatestone "	..	..	11 30	..	11 48	..	12 18	..	..	..	..	..	1 02	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
CHELMSFORD arr	..	..	11 33	..	11 51	..	12 21	..	..	..	12 42	..	1 05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	11 38	..	11 56	..	12 26	..	..	..	..	..	1 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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 Layout Translation

Modern Grid Trans

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 84.)

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 Layout Translation

Modern Grid Trans

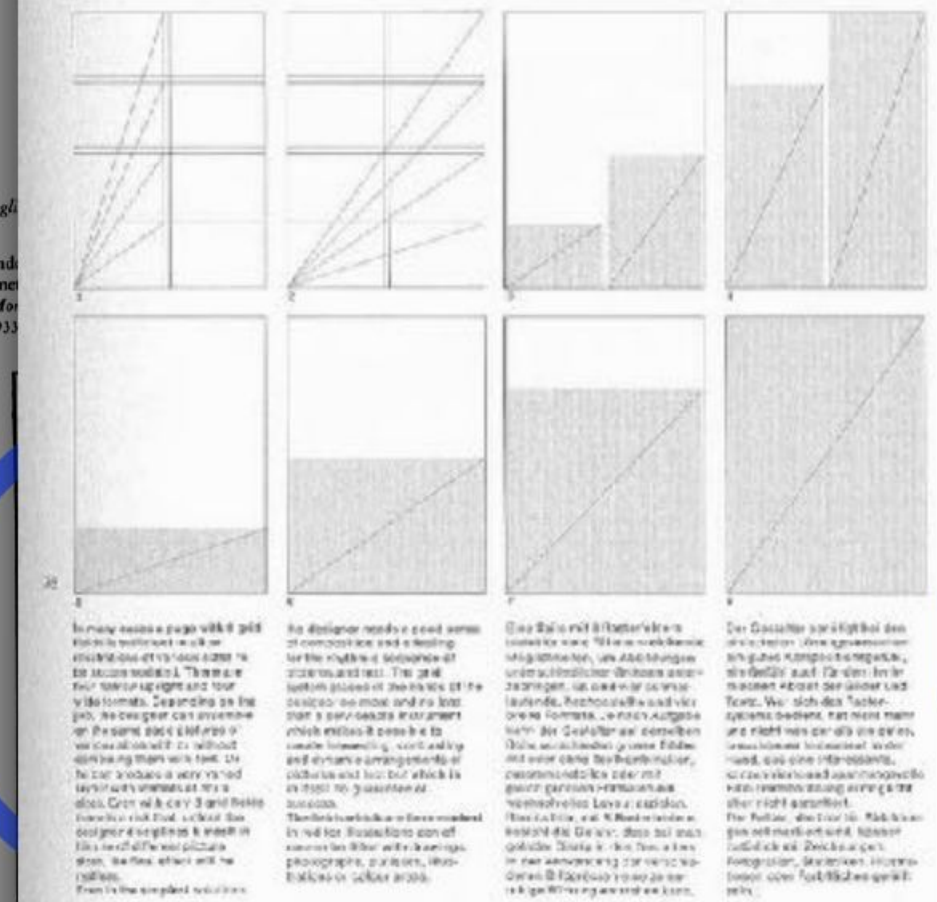


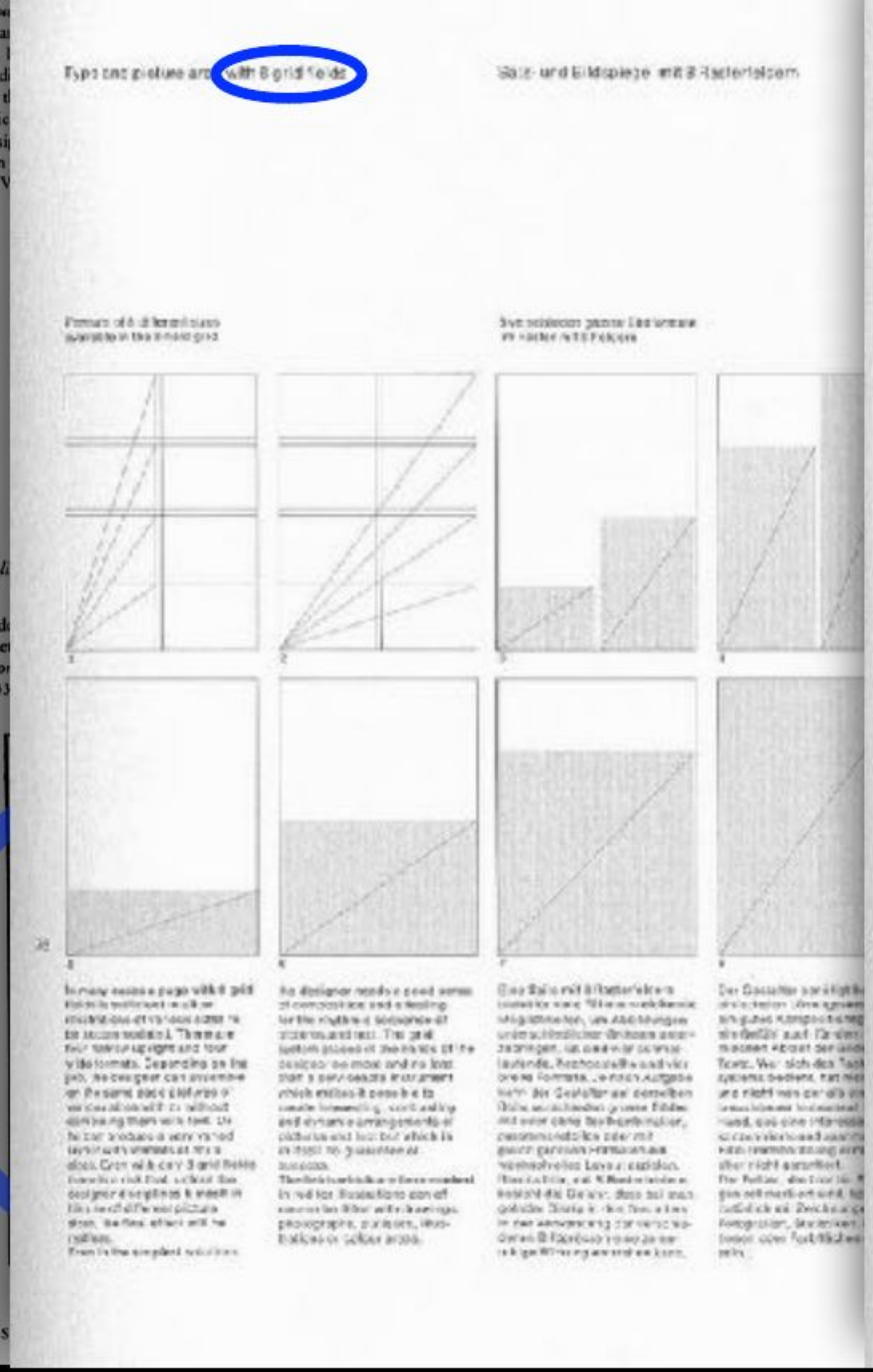
TABLE 13—*continued.* **LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.** 6

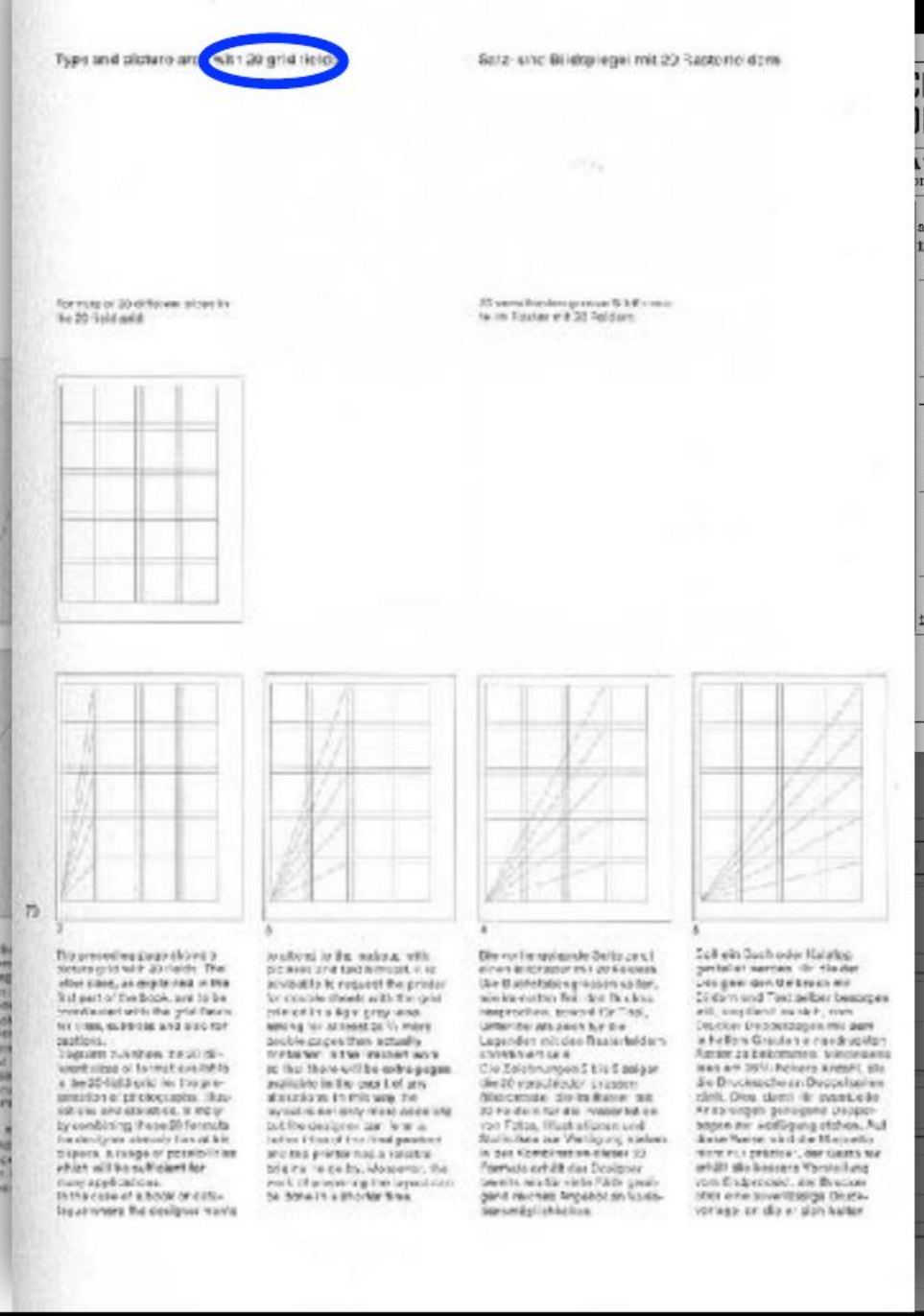
MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages 63 to 64.)

	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
LIVERPOOL ST. dep.	10 34	10 46	..	10 45	10 58	..	..	11 11	..	11 25	11 30	..	11 40	11 46	..	12 04	..	2 25	2 51	2 54	3 05	..	3 25	..	..	3 24	..	..	..	..
Bethnal Green ..... "	10 38	..	..	10 49	..	..	..	11 13	..	11 20	..	..	11 28	..	..	..	..	2 28	2 54	..	3 08	..	3 28	..	..	3 26	..	..	..	..
Coborn Road ..... "	10 42	..	..	10 53	..	..	..	11 16	..	..	..	..	11 38	..	..	..	..	2 31	..	..	3 12	..	3 31	..	..	3 31	..	..	..	..
			1030													1252														
FENCHURCH ST. dep.	..	1030	..	..	..	..	11 5	..	11 8	..	..	11 58	..	..	..	..	1 54	..	..	1 25	..	..	..	..	..	..	..	..	..	..
Leman Street ..... "	..	1032	..	..	..	..	..	..	11 10	..	..	..	..	..	..	..	2 00	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shadwell & St. George's E. "	..	1034	..	..	..	..	11 10	..	11 10	..	..	..	..	..	..	..	2 00	..	..	1 16	..	..	..	..	..	..	..	..	..	..
Stepney (East) ..... "	..	1037	..	..	..	..	11 10	..	11 13	..	..	12 03	..	..	..	..	2 03	..	..	2 22	..	..	..	..	..	..	..	..	..	..
Burdett Road ..... "	..	1039	..	..	..	..	11 12	..	11 15	..	..	12 05	..	..	..	..	2 08	..	..	2 55	..	..	..	..	..	..	..	..	..	..
Bow Road ..... "	..	1043	..	..	..	..	11 15	..	11 18	..	..	12 08	..	..	..	..	2 08	..	..	3 18	..	..	..	..	..	..	..	..	..	..
Stratford Market..... arr.	..	..	..	..	..	..	11 21	..	11 24	..	..	1 24	..	..	..	..	..	..	..	3 26	..	..	..	..	..	..	..	..	..	..
Stratford ..... { arr	10 46	10 55	..	10 57	11 00	..	11 26	11 30	11 36	11 42	..	..	12 12	12 20	..	..	1 16	1 54	2 20	2 40	3 04	3 32	4 52	..	3 06	..	..	..	..	..
dep.	..	10 50	10 58	..	11 6	..	11 31		11 42	11 48	..	..	12 14	12 22	..	..	1 58	2 23	2 43	3 07	3 31	..	..	..	3 30	..	..	..	..	..
Maryland Point ..... "	..	10 52	..	..	11 4	..	11 33	..	11 44	11 50	..	..	12 16	12 24	..	..	2 00	2 25	2 45	3 09	3 33	..	..	..	3 33	..	..	..	..	..
Forest Gate ..... "	..	10 55	..	..	11 7	..	11 36	..	11 47	11 53	..	..	12 19	12 27	..	..	2 03	2 28	2 48	3 12	3 36	..	..	..	3 36	..	..	..	..	..
Manor Park ..... "	..	10 58	..	..	11 9	..	11 39	..	11 50	11 56	..	..	12 22	12 30	..	..	2 06	2 31	2 51	3 15	3 39	..	..	..	3 39	..	..	..	..	..
Ilford ..... "	..	11 3	..	..	11 15	..	11 45	..	11 56	12 02	..	..	12 28	12 36	..	..	2 12	2 37	2 57	3 21	3 45	..	..	..	3 45	..	..	..	..	..
Seven Kings ..... "	..	11 7	..	..	11 17	..	11 50	..	12 07	..	..	..	12 38	12 41	..	..	2 17	2 42	3 02	3 26	3 50	..	..	..	..	..	..	..	..	..
Goodmayes ..... "	..	11 10	..	..	11 20	..	11 54	..	12 11	..	..	..	12 37	12 45	..	..	2 21	2 46	3 06	3 30	3 54	..	..	..	..	..	..	..	..	..
Chadwell Heath ..... "	..	11 12	..	..	11 24	..	11 58	..	12 15	..	..	..	12 41	12 49	..	..	2 25	2 50	3 10	3 34	3 58	..	..	..	..	..	..	..	..	..
Gidea Park & Squirrels Heath "	..	..	11 13	..	11 31	..	12 01	..	12 18	..	..	..	12 44	12 52	..	..	2 28	2 53	3 13	3 37	4 01	..	..	..	..	..	..	..	..	..
Harold Wood ..... "	..	..	11 15	..	11 33	..	12 03	..	12 20	..	..	..	12 46	12 54	..	..	2 30	2 55	3 15	3 39	4 03	..	..	..	..	..	..	..	..	..
Brentwood and Warley ..... "	..	..	11 17	..	11 35	..	12 05	..	12 23	..	..	..	12 49	12 57	..	..	2 33	2 58	3 18	3 42	4 06	..	..	..	..	..	..	..	..	..
Shenfield and Hutton ..... "	..	..	11 21	..	11 39	..	12 09	..	..	..	..	..	12 53	..	1 01	..	2 37	3 02	3 22	3 46	4 10	..	..	..	..	..	..	..	..	..
Ingatestone ..... "	..	..	11 30	..	11 48	..	12 18	..	..	..	..	..	1 02	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
			11 33		11 51		12 21						1 05																	
CHELMSFORD ..... arr.	..	..	11 38	..	11 56	..	12 26	..	..	..	12 42	..	1 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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.





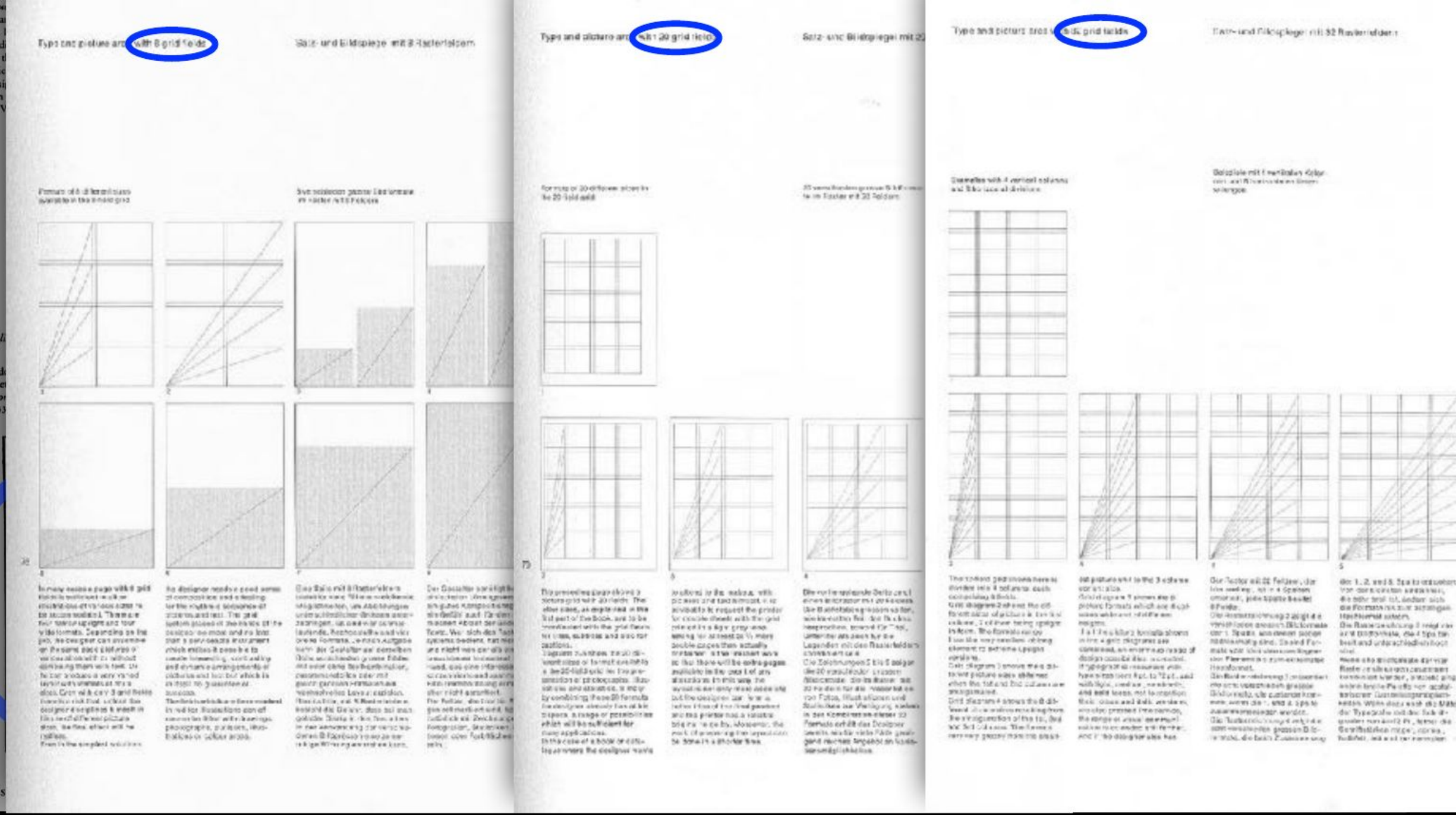
CHURCH STREET, STRATFORD,
D, SHENFIELD AND CHELMSFORD.

6

AYS TO FRIDAYS INCLUSIVE.
r trains on Saturdays see pages 63 to 64.)

a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	a.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.	p.m.
11 30	..	11 40	11 46	..	12 04	..	2 35	2 51	2 54	3 05	..	3 25	..	..	3 24	..	..
..	..	11 28		..	..	..	2 28	2 54	→	3 06	..	3 28	..	..	3 26	..	..
..	..	11 38		..	..	..	2 31	..	→	3 12	..	3 31	..	..	3 31	..	..
..					12 52												
..	11 58	..	..	..	..	1 54	..	..	1 25	..	..	..	..	..	..	..	..
→	..	..	←	..	..	2 00	..	..	→	..	..	..	..	..	..	..	..
→	..	..	←	..	..	2 00	..	..	1 16	..	..	..	..	..	..	..	..
..	12 03	..	..	..	..	2 03	..	..	2 22	..	..	..	..	..	..	..	..
..	12 05	..	..	..	..	2 08	..	..	2 55	..	..	..	..	..	..	..	..
..	12 08	..	..	..	..	2 08	..	..	3 18	..	..	..	..	..	..	..	..
..	1 24	..	..	..	..	..	..	..	3 26	..	..	..	..	..	..	..	..
..	..	12 12	12 20	..	..	1 16	1 54	2 20	2 40	3 04	3 32	4 52	..	3 06	..	..	..
→	..	12 14	12 22	..	..	1 58	2 23	2 43	3 07	3 31	..	..	..	3 30	..	..	..
..	..	12 16	12 24	..	..	2 00	2 25	2 45	3 09	3 33	..	..	..	3 33	..	..	..
..	..	12 19	12 27	..	..	2 03	2 28	2 48	3 12	3 36	..	..	..	3 36	..	..	..
..	..	12 22	12 30	..	..	2 06	2 31	2 51	3 15	3 39	..	..	..	3 39	..	..	..
..	..	12 28	12 36	..	..	2 12	2 37	2 57	3 21	3 45	..	..	..	3 45	..	..	..
..	..	12 38	13 41	..	..	2 17	2 42	3 02	3 26	3 50	..	..	..	..	..	..	..
..	..	12 37	12 45	..	..	2 21	2 46	3 06	3 30	3 54	..	..	..	..	..	..	..
..	..	12 41	12 49	..	..	2 25	2 50	3 10	3 34	3 58	..	..	..	..	..	..	..
..	..	12 44	12 52	..	..	2 28	2 53	3 13	3 37	4 01	..	..	..	..	..	..	..
..	..	12 46	12 54	..	..	2 30	2 55	3 15	3 39	4 03	..	..	..	..	..	..	..
..	..	12 49	12 57	..	..	2 33	2 58	3 18	3 42	4 06	..	..	..	..	..	..	..
..	..	12 53	..	1 01	..	2 37	3 02	3 22	3 46	4 10	..	..	..	..	..	..	..
..	..	1 02	..	..	..	..	..	..	→	..	..	..	..	..	..	..	..
..	..	1 05	..	..	..	..	..	..	→	..	..	..	..	..	..	..	..
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SS Second class carriages are not run on these trains.

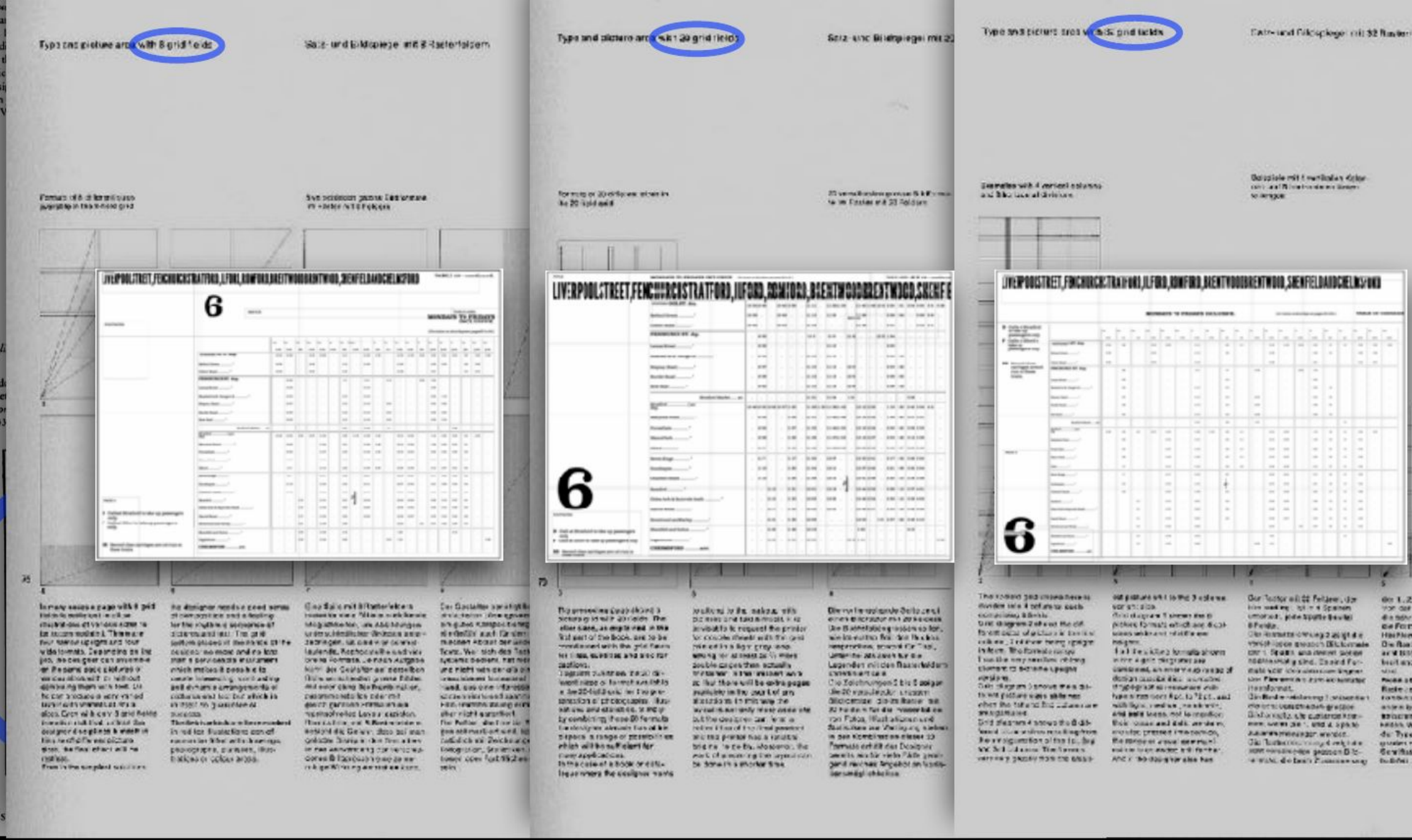


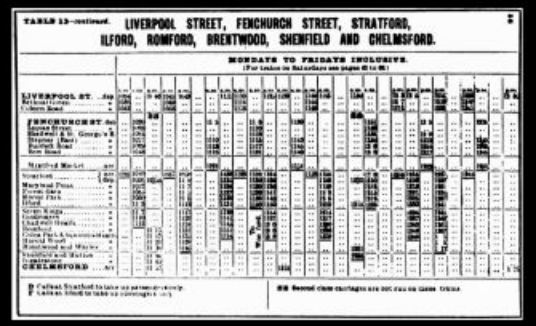
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4) Oxford Engli

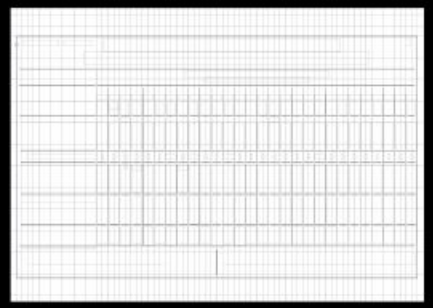
Fig. 1) Londo
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(Winter 1933

Design Is



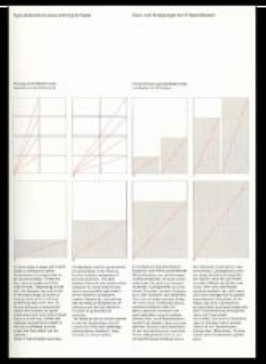


Müller-Brockmann, J. (1981)
8 grid fields
Modern Grid Translation

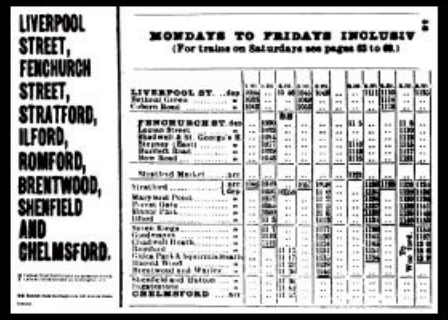


Modern Grids and Layouts



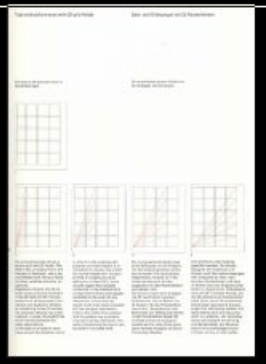


Müller-Brockmann, J. (1981)
8 grid fields
Modern Grid Translation

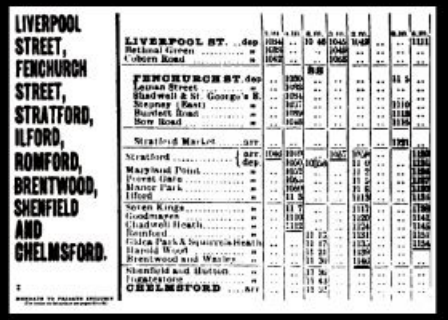


Modern Grids and Layouts



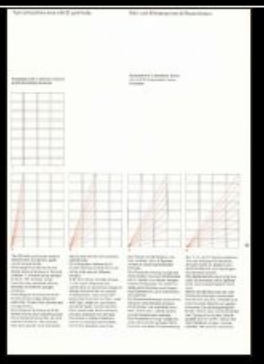


Müller-Brockmann, J. (1981)
20 grid fields
Modern Grid Translation



Modern Grids and Layouts





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



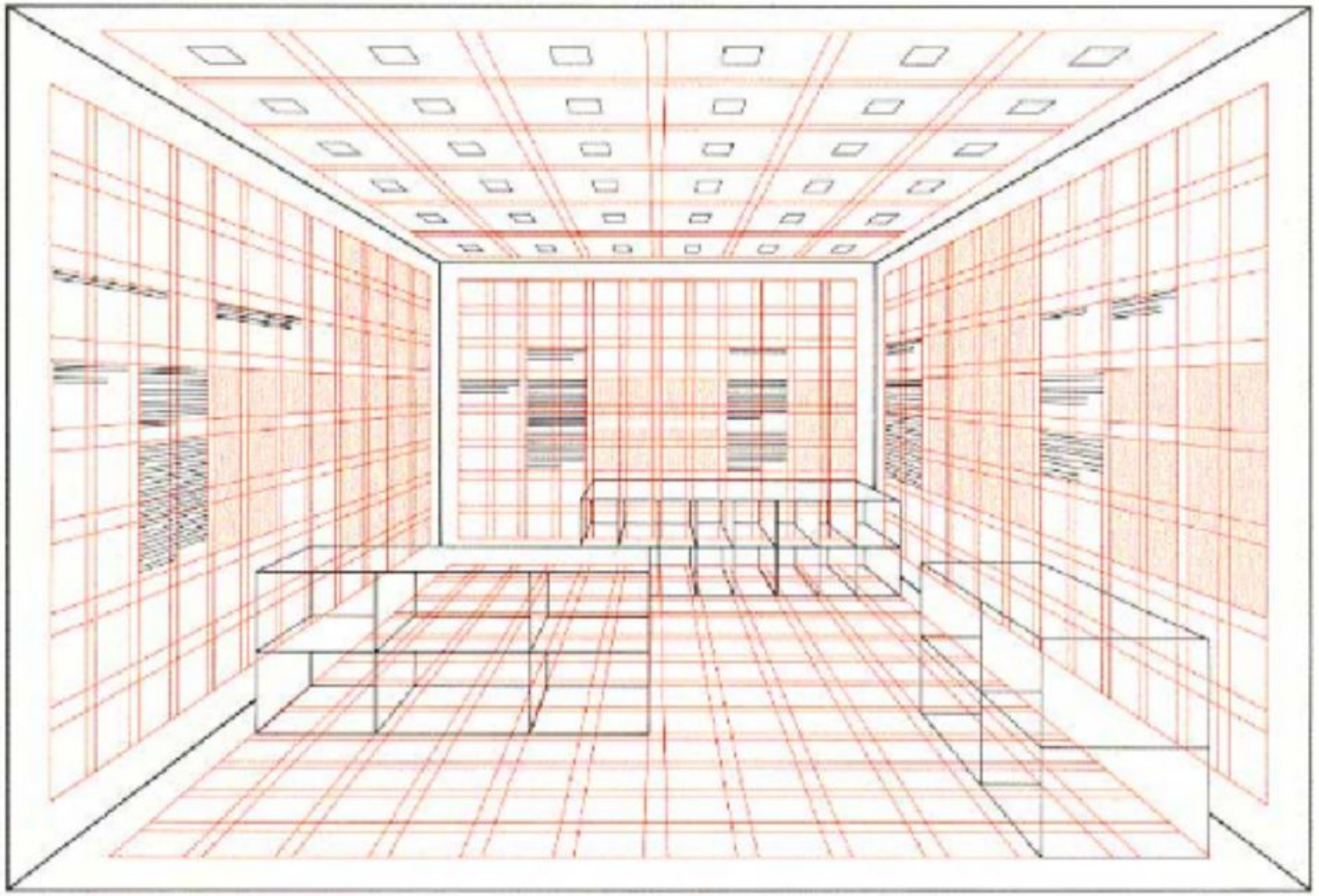
Modern Grids and Layouts



*Testing_* Grid Resolution Study

Grid in the three-dimensional space with light fittings, flooring, furniture, texts and pictures sketched in

Raster im dreidimensionalen Raum mit skizzierten Beleuchtungen, Bodenbelag, Mobiliar, Texten und Bildern



148

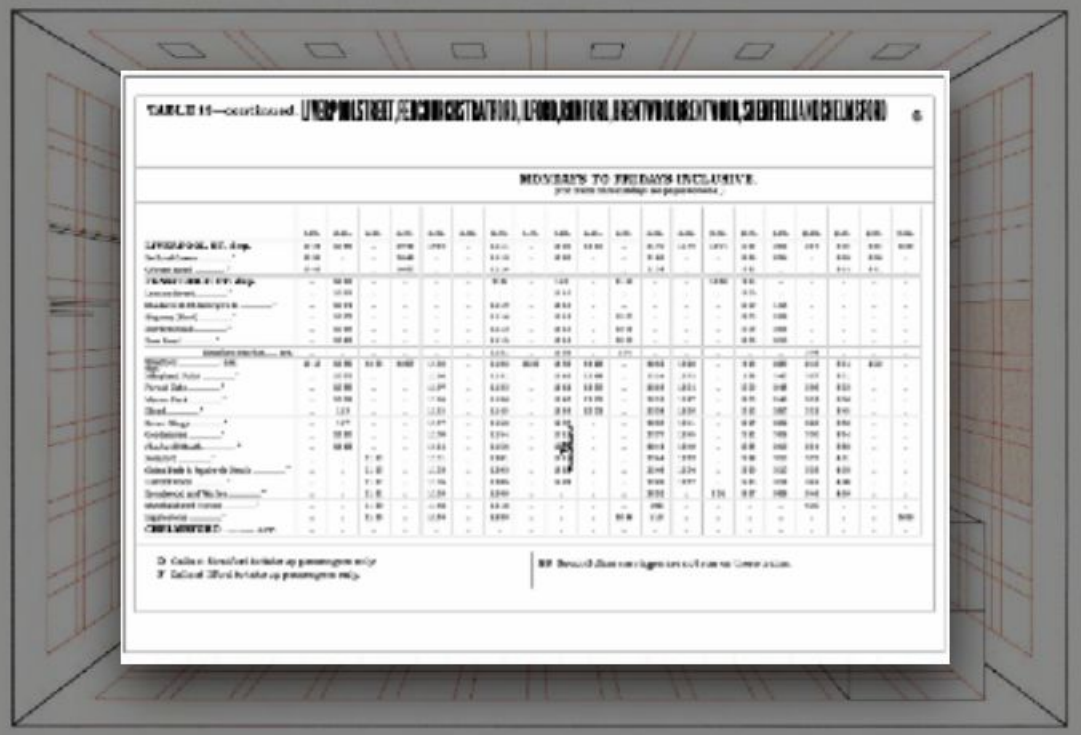
This perspective drawing shows diagrammatically how space can be articulated and structured with the aid of the grid. Furniture, ceiling lights, typography and illustrations are all matched to the grid insofar as size and

Mit dieser perspektivischen Darstellung ist schematisch eine räumliche Gliederung und Strukturierung mittels des Rasters erklärt. Mobiliar, Deckenbeleuchtung, Typografie, Abbildungen sind rasterbedingt, was

Müller-Brockmann (1981), p.148

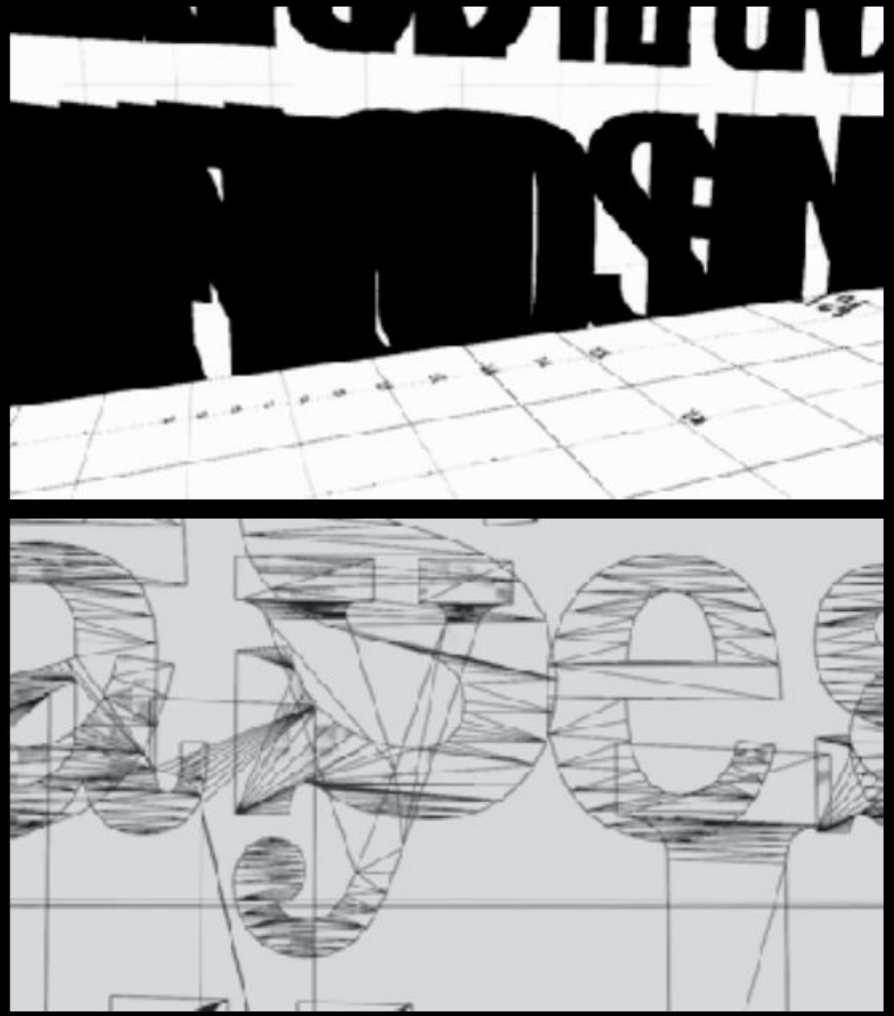
"space can be articulated and structured with the aid of the grid"

*Testing_* Grid Resolution Study



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

*Testing_* Grid Resolution Study



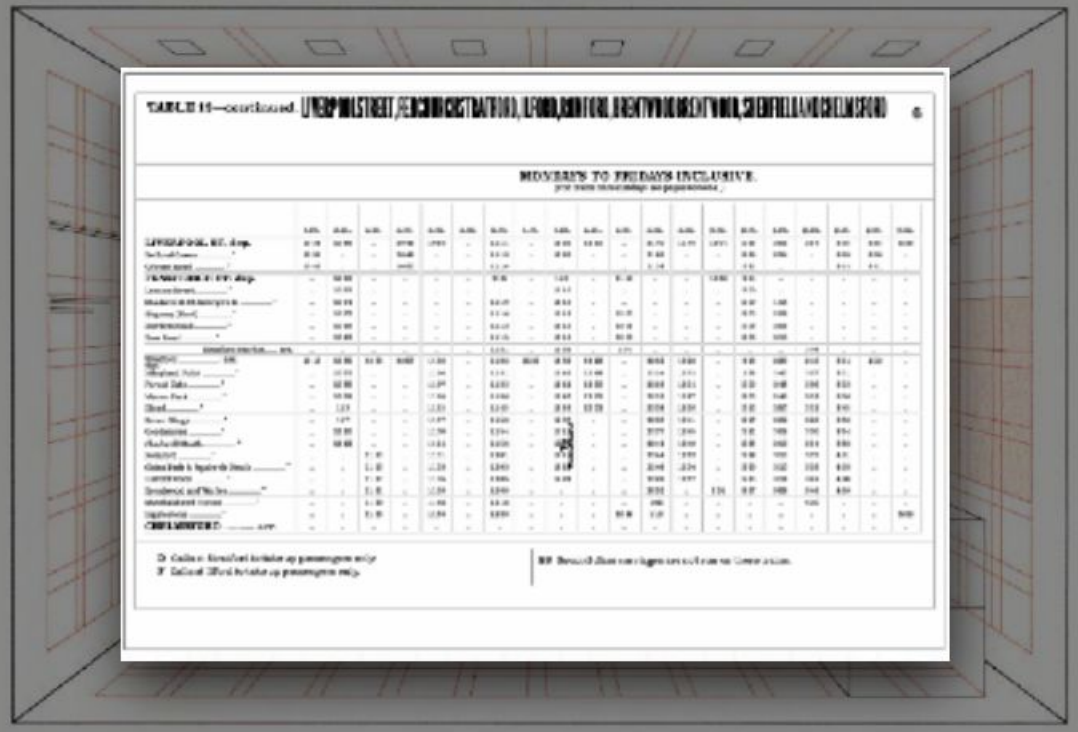
Müller-Brockmann (1981), p.148
"space can be articulated and structured with the aid of the grid"

The grid in three-dimensional design

Der Raster in der dreidimensionalen Gestaltung

Grid in the three-dimensional space with light fittings, flooring, furniture, texts and pictures sketched in

Raster im dreidimensionalen Raum mit skizzierten Beleuchtungen, Bodenbelag, Mobiliar, Texten und Bildern

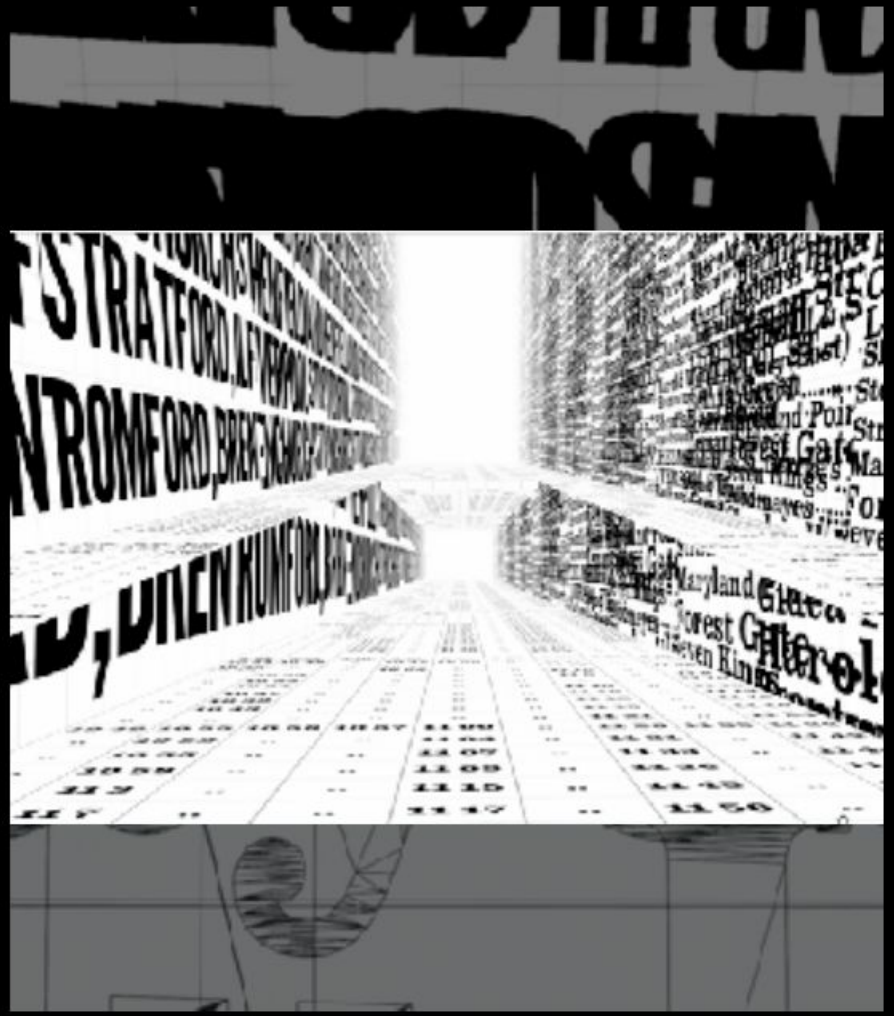


148

This perspective drawing shows diagrammatically how space can be articulated and structured with the aid of the grid. Furniture, ceiling lights, typography and illustrations are all matched to the grid insofar as size and arrangement in space are concerned. One of the many possibilities is to cover the floor with tiles or mats which are the size of a grid unit but it can just as well be covered with a plain wall-to-wall carpet. A monochrome floor covering can be very helpful in throwing the other elements into prominence.

Mit dieser perspektivischen Darstellung ist schematisch eine räumliche Gliederung und Strukturierung mittels des Rasters erklärt. Mobiliar, Deckenbeleuchtung, Typografie, Abbildungen sind rasterbedingt, was Grösse und Anordnung im Raum betrifft. Der Fussboden kann, als eine der vielen Möglichkeiten, mit Platten oder Matten von der Grösse einer Rastereinheit, er kann aber auch mit einem einfarbigen Teppich voll abgedeckt sein. Ein monochromer Bodenbelag kann die übrigen Raumelemente in der Wirkung sehr

*Testing_* Grid Resolution Study



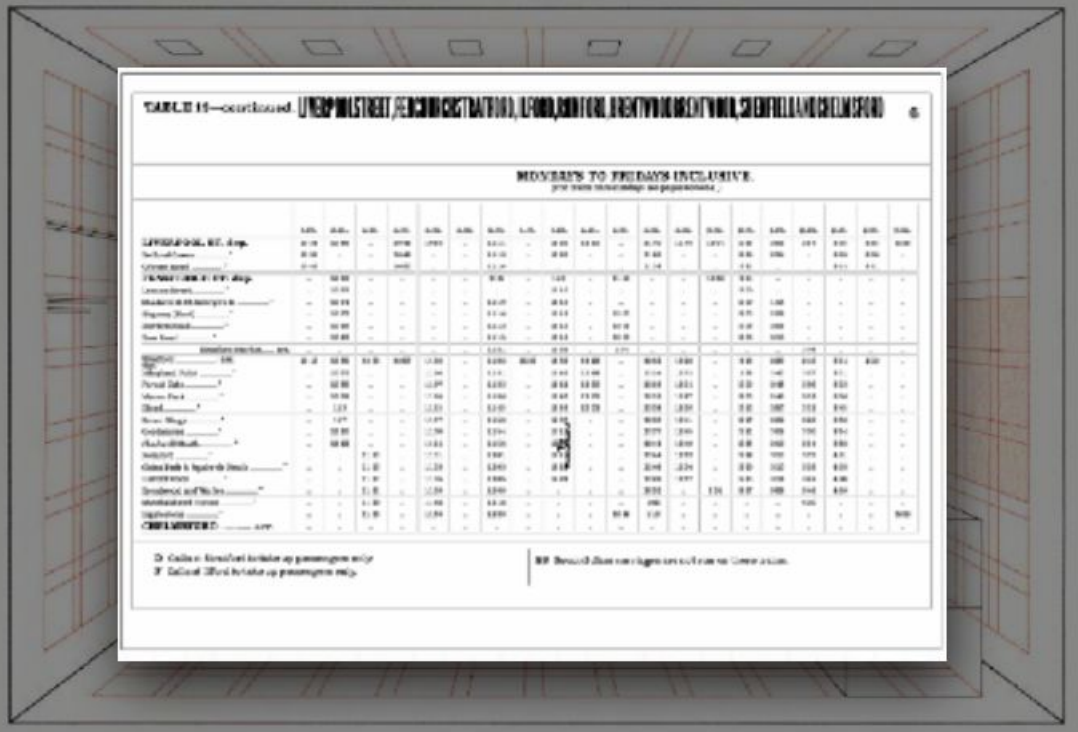
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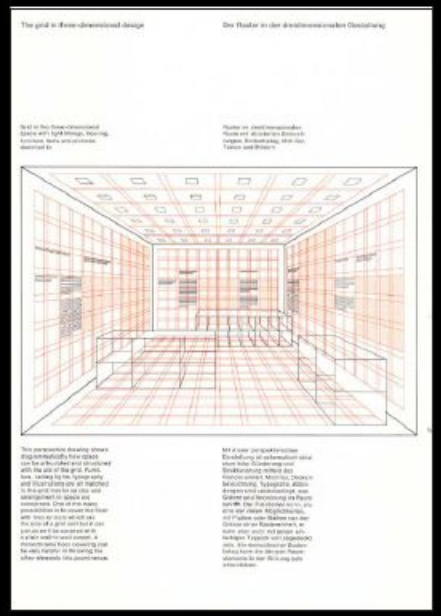


148

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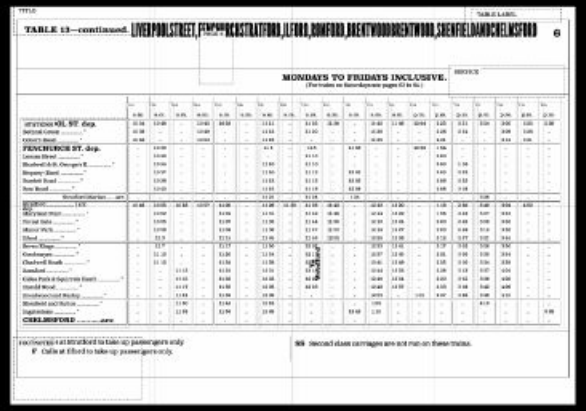
*Testing_* Grid Resolution Study



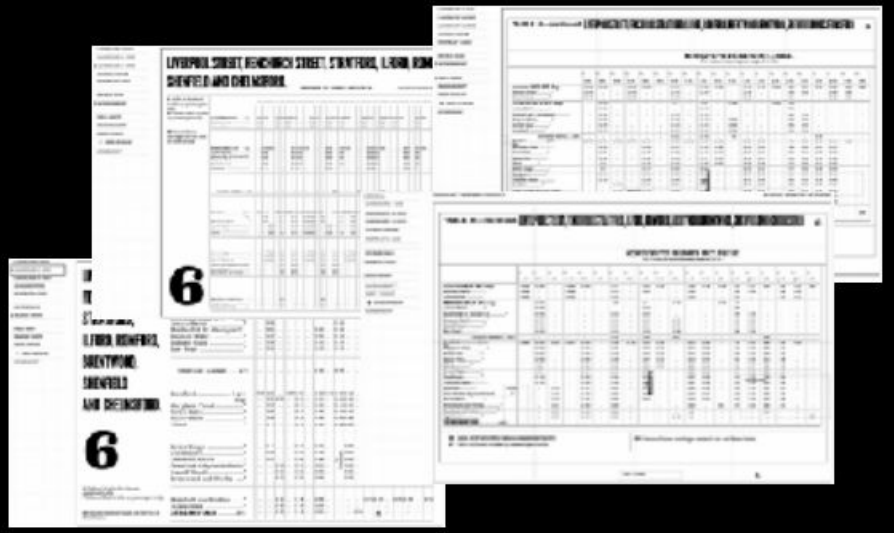
Müller-Brockmann (1981), p.148
"space can be articulated and structured with the aid of the grid"



Modern Grid Translation



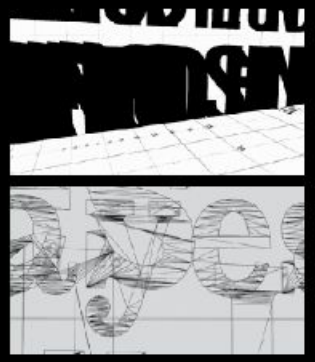
Original Information Overlaid with a Modern Grid



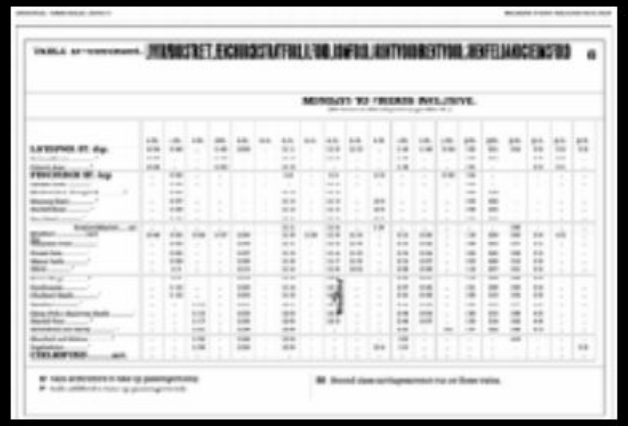
Different Grid in Web

2D

3D



3D Grid Construction and Translation



3D Website Placement



Create a 3D interactive content grid

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

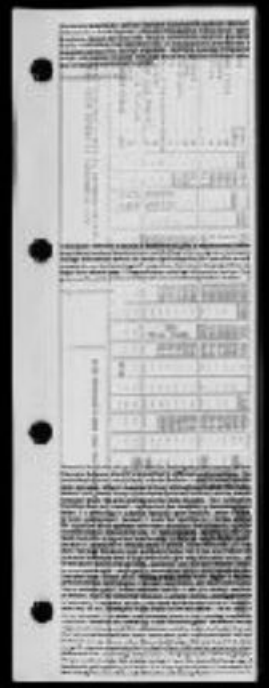
*Testing_* From screen to paper

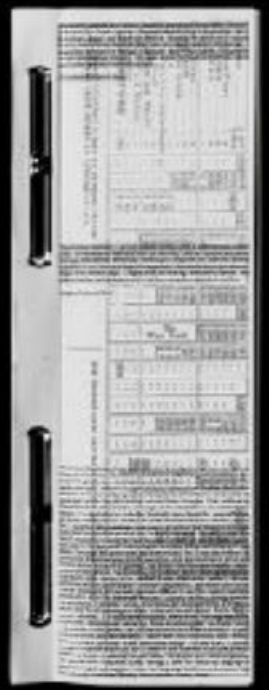
Newspaper

A3

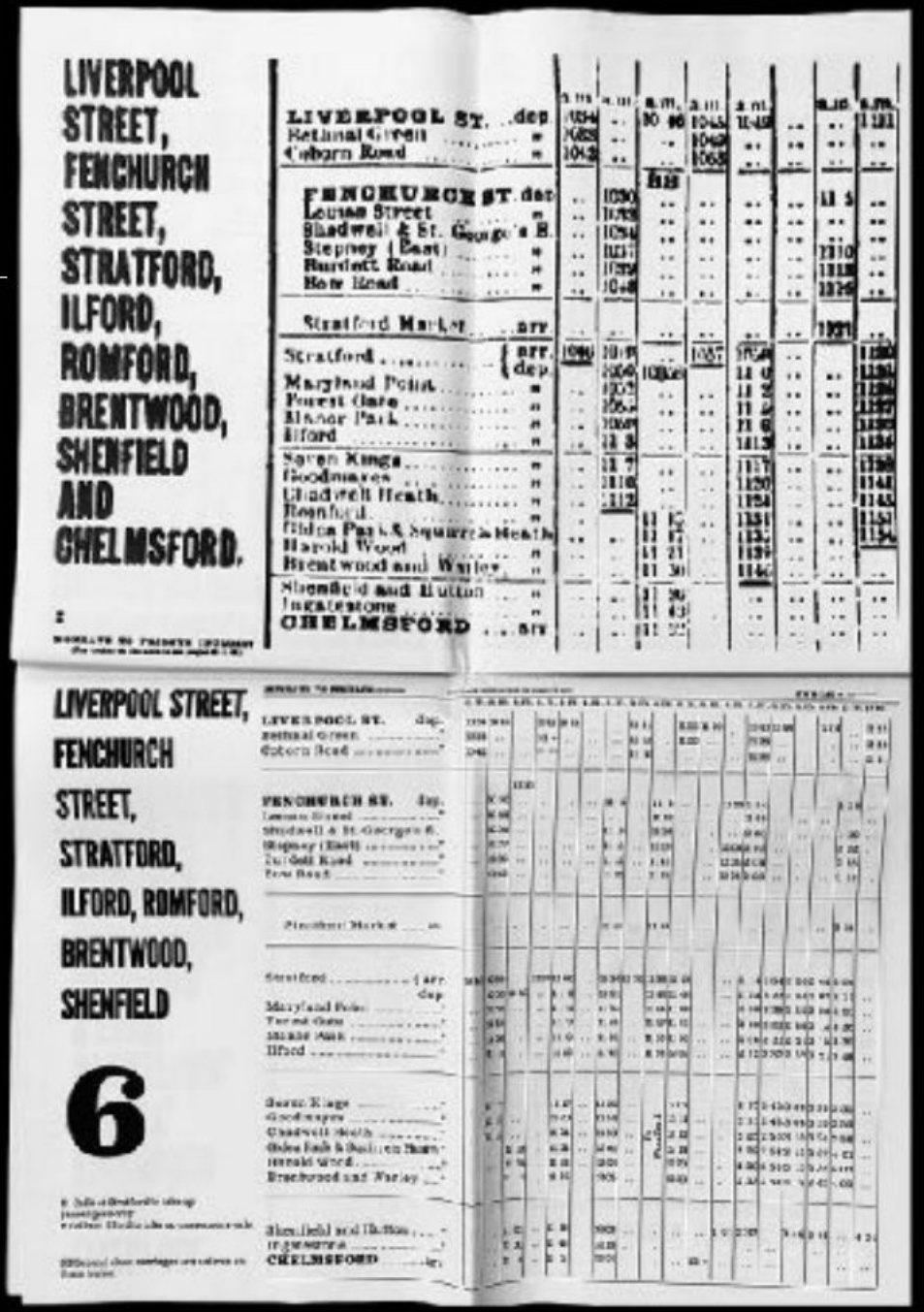
A4











*Testing_* From screen to paper



*Testing_* From scree



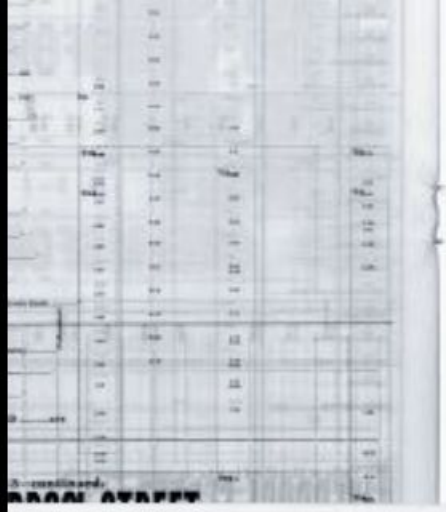
TABLE 13—*continued.* LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD. 8

MONDAYS TO FRIDAYS INCLUSIVE.
(For trains on Saturdays see pages 68 to 94.)

	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	a.m	p.m	p.m	p.m	p.m	p.m	p.m	p.m	p.m	p.m	p.m	p.m	p.m
LIVERPOOL ST. dep	1034	1046	..	1042	1058	..	..	11 11	..	11 25	11 38	..	11 46	11 46	..	1204	..	2 25	2 52	3 12	3 43	4 09	..	3 25	..	..	3 24	..	..	..	..
Bethnal Green	1038	..	..	1046	..	..	..	11 15	..	11 30	..	..	11 28	..	..	..	..	2 28	2 54	..	3 09	..	..	3 28	..	..	3 26	..	..	..	..
Coborn Road	1042	..	..	1052	..	..	..	11 16	..	..	..	..	11 38	..	..	..	..	2 31	..	..	3 12	..	..	3 31	..	..	3 31	..	..	..	..
			1030													1252															
FENCHURCH ST. dep	..	1038	..	..	..	..	11 8	..	11 8	..	..	11 58	..	..	..	..	1 54	..	..	1 25	..	..	..	..	..	..	..	..	..	..	..	..
Leman Street	..	1038	..	..	..	..	..	..	11 10	..	..	..	..	..	..	..	2 00	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shadwell & St. George's E.	..	1041	..	..	..	..	11 10	..	11 10	..	..	..	..	..	..	..	2 00	..	..	1 16	..	..	..	..	..	..	..	..	..	..	..	..
Stepney (East)	..	1045	..	..	..	..	11 14	..	11 14	..	..	1203	..	..	..	..	2 03	..	..	1 22	..	..	..	..	..	..	..	..	..	..	..	..
Bardett Road	..	1048	..	..	..	..	11 12	..	11 15	..	..	1206	..	..	..	..	2 06	..	..	1 25	..	..	..	..	..	..	..	..	..	..	..	..
Bow Road	..	1048	..	..	..	..	11 15	..	11 18	..	..	1209	..	..	..	..	2 08	..	..	1 18	..	..	..	..	..	..	..	..	..	..	..	..
Stratford Market..... arr	..	..	..	..	..	..	11 21	..	11 24	..	..	1 24	..	..	..	..	..	..	..	1 26	..	..	..	..	..	..	..	..	..	..	..	..
Stratford ..... arr	1046	1052	..	1057	1100	..	11 28	11 30	11 36	11 42	..	..	12 12	12 30	..	..	1 16	1 54	2 20	2 43	3 04	3 32	4 52	..	3 06	..	..	..	..	..	..
dep	..	1055	1056	..	11 6	..	11 31	..	11 43	11 49	..	..	12 14	12 33	..	..	1 48	2 32	2 23	3 07	3 23	3 31	..	..	3 20	..	..	..	..	..	..
Maryland Point	..	1058	..	..	11 4	..	11 35	..	11 44	11 50	..	..	12 16	12 24	..	..	2 00	2 52	2 45	3 09	3 33	..	..	..	3 33	..	..	..	..	..	..	..
Forest Gate	..	1058	..	..	11 7	..	11 38	..	11 47	11 53	..	..	12 19	12 27	..	..	2 03	2 82	2 48	3 12	3 36	..	..	..	3 36	..	..	..	..	..	..	..
Manor Park	..	1058	..	..	11 9	..	11 39	..	11 50	11 56	..	..	12 22	12 30	..	..	2 09	3 12	2 51	3 15	3 39	..	..	..	3 39	..	..	..	..	..	..	..
Ilford	..	11 3	..	..	11 12	..	11 42	..	11 56	12 02	..	..	12 28	12 36	..	..	2 12	3 72	2 57	3 21	3 45	..	..	..	3 45	..	..	..	..	..	..	..
Seven Kings	..	11 7	..	..	11 17	..	11 50	..	To Woodford	12 07	..	..	12 33	12 41	..	..	2 17	2 42	3 02	3 26	3 50	..	..	..	..	..	..	..	..	..	..	..
Goodmayes	..	11 10	..	..	11 20	..	11 54	..		12 11	..	..	12 37	12 45	..	..	2 21	2 46	3 06	3 30	3 54	..	..	..	..	..	..	..	..	..	..	..
Chadwell Heath	..	11 14	..	..	11 24	..	11 58	..		12 15	..	..	12 41	12 49	..	..	2 25	2 50	3 10	3 34	3 58	..	..	..	..	..	..	..	..	..	..	..
Gdea Park & Squirrels Heath	..	..	11 13	..	11 31	..	12 01	..		12 18	..	..	12 44	12 52	..	..	2 28	2 53	3 13	3 37	4 01	..	..	..	..	..	..	..	..	..	..	..
Harold Wood	..	..	11 15	..	11 33	..	12 03	..		12 20	..	..	12 46	12 54	..	..	2 30	2 55	3 15	3 39	4 03	..	..	..	..	..	..	..	..	..	..	..
Brentwood and Warley	..	..	11 17	..	11 38	..	12 05	..		12 23	..	..	12 49	12 57	..	..	2 33	2 58	3 18	3 42	4 06	..	..	..	..	..	..	..	..	..	..	..
Shenfield and Hutton	..	..	11 21	..	11 38	..	12 08	..	..	..	..	..	12 56	..	1 01	..	2 37	3 02	3 22	3 46	4 10	..	..	..	..	..	..	..	..	..	..	..
Ingatestone	..	..	11 30	..	11 48	..	12 18	..	..	..	..	..	1 02	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
CHELMSFORD ..... arr	..	..	11 35	..	11 51	..	12 21	..	..	..	1242	..	1 05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	11 38	..	11 56	..	12 25	..	..	..	..	..	1 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

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.





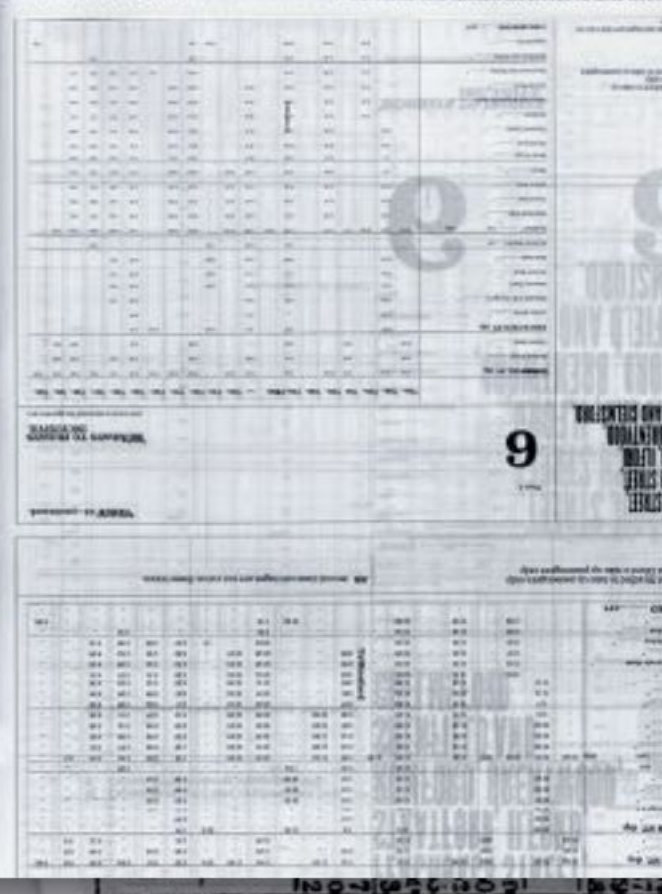


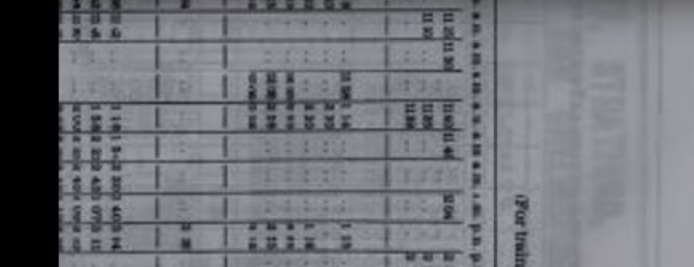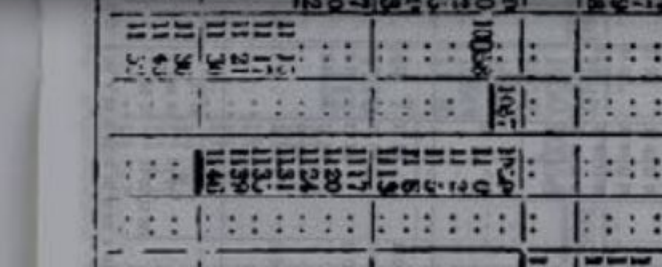












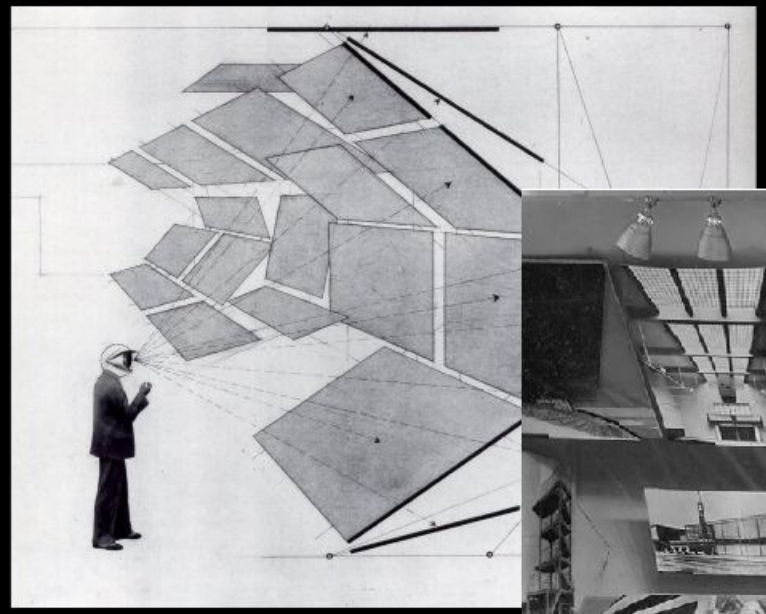



LIVERPOOL STREET,
FENCHURCH STREET,
STRATFORD,
ILFORD, ROMFORD,
BRENTWOOD,
SHENFIELD
AND CHELMSFORD.
6
MONDAYS TO FRIDAYS
INCLUSIVE.
LIVERPOOL STREET,
FENCHURCH STREET,
STRATFORD,
ILFORD, ROMFORD,
BRENTWOOD,
SHENFIELD
AND CHELMSFORD.
MONDAYS TO FRIDAYS INCLUSIV
(For trains on Saturdays see page 6 to 8.)
FENCHURCH ST.
Stratford Market
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

*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)



mines the nature of the message, there is a primacy of the relation over being. In other words, it is the bodies which think, not the minds. The constraint of incorporation produces corporations, which are these intermediary bodies and these institutions of knowledge, abiding by norms and formulating norms known as schools, churches, parties, associations, debating societies, etc.

– Régis Debray, 1994

Criticism is not an innocent discipline, and has never been.

...

The moment when a material or intellectual practice begins to "think itself," to take itself as an object of intellectual inquiry, is clearly of dominant significance in the development of that practice; it will certainly never be the same again. What thrusts such a practice into self-reflexiveness is not merely an internal pressure, but the complex unity it forms with adjacent discourses.

– Terry Eagleton, 1975/76

– Terry Eagleton, 1985

Valid critical judgment is the fruit not of spiritual dissociation but of an energetic



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**.



Cambridge Dictionary

Found

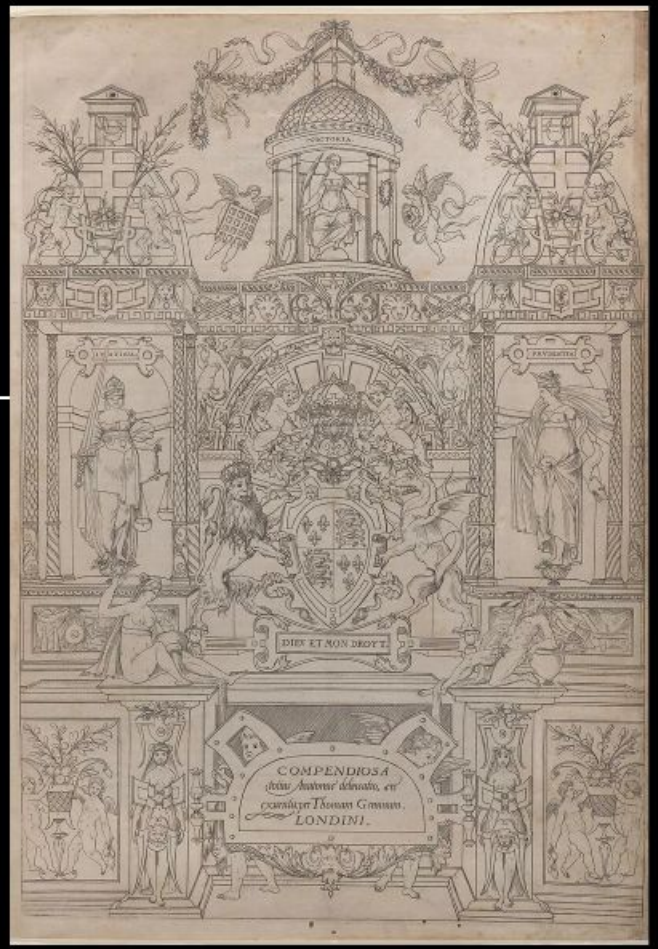


NYPL collection



Vesalius, 1543

Reassembled



Geminus, 1545

*Retrieval and collage_* Position as arrangement

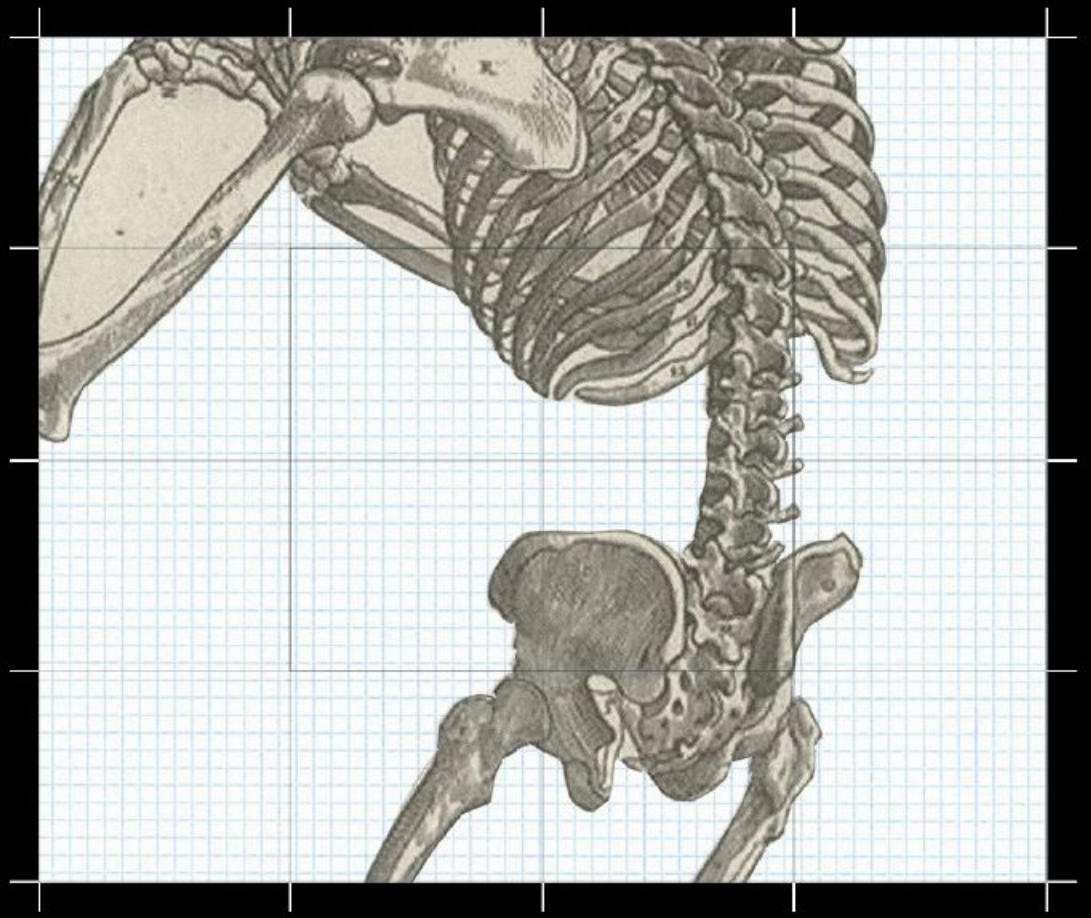
Each image is reproduced at a 1:1 scale, then printed, cropped, and left with the traces of its cropping, to observe the changes in their relationships.



Cutting



Remainder



Tracing on grid tracing paper

*Retrieval and collage_* Position as arrangement

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











*Comparison_* An archive of changes



Vesalius / source pages

Historical Adaptation



Geminus / one plate

My Adaptation

Original / detail

Legs



*Comparison_* An archive of changes



Vesalius / source pages

Historical Adaptation



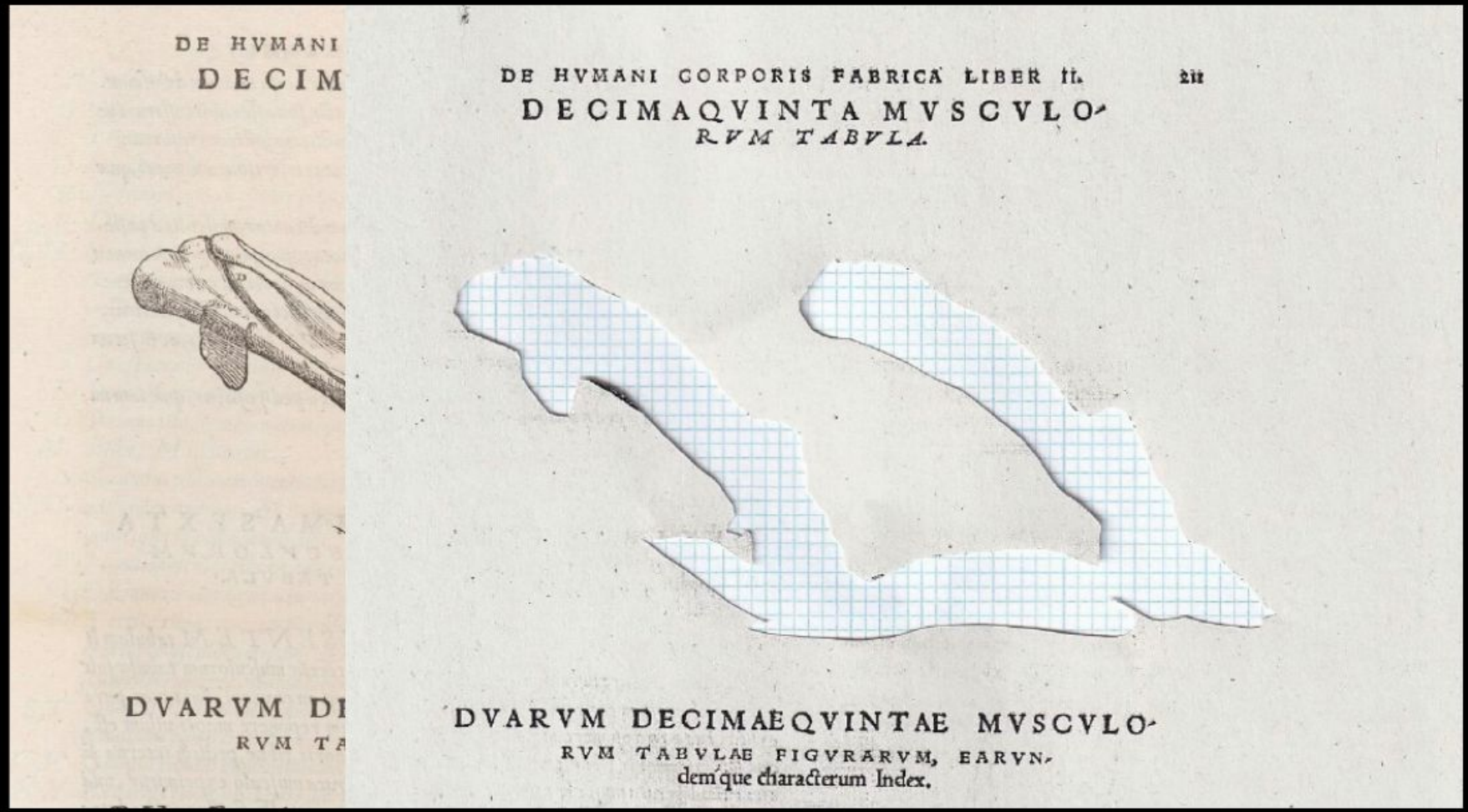
Geminus / one plate

My Adaptation

Original / detail

Remaining sheet

Legs



*Comparison_* An archive of changes

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

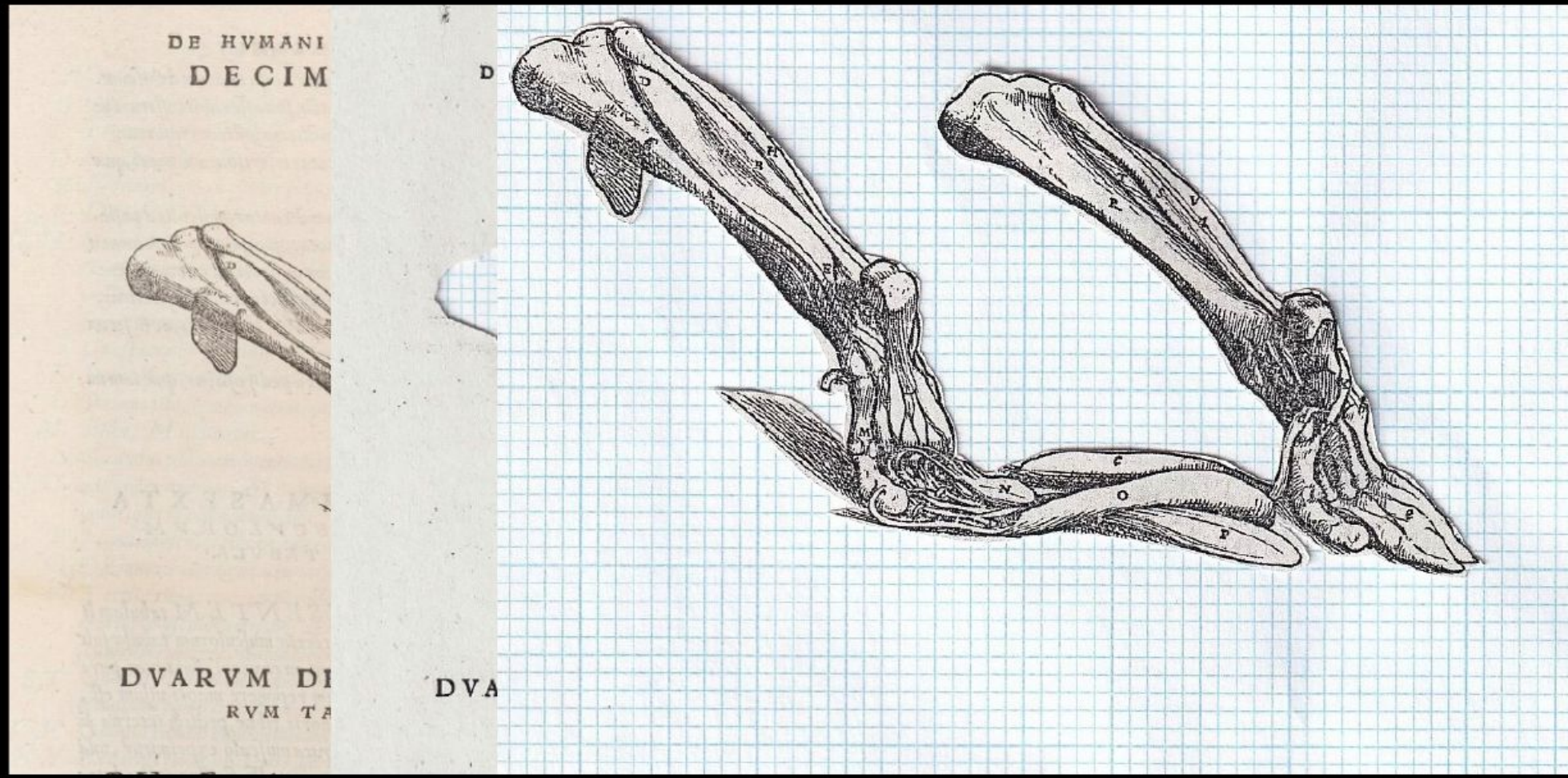


Geminus / one plate

My Adaptation

Original / detail | Remaining sheet | Removed image

Legs





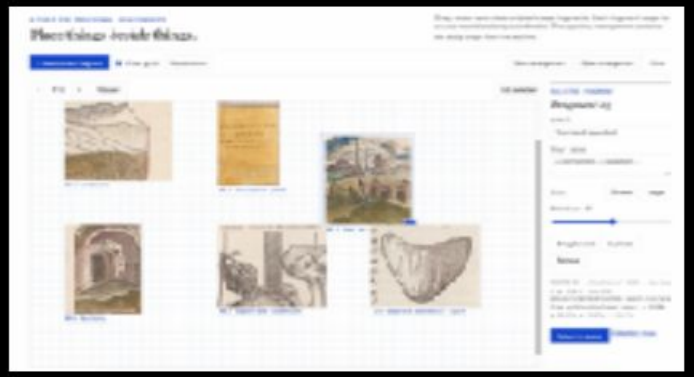
Vesalius / source pages

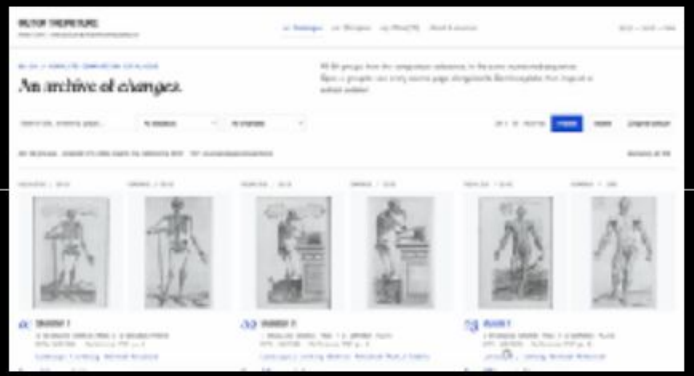
Historical Adaptation



Geminus / copy plate

My Adaptation







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
The body's position.
The image's position.
The editor's position.
1545
Gessners
Compendiose zritte
anatomic offentlich
The body's position.
The image's position.
The editor's position.

Weakness: any material would have done.

My method showed how rearrangement changes information, but not **where I stood**. I had been studying what moves inside the frame, not the frame itself. Across both projects, one thing stayed constant: **the grid underneath**.

*Turning point_* Back to the grid

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

By frame I mean what is **decided** before any content arrives: where things can go, and what cannot enter.

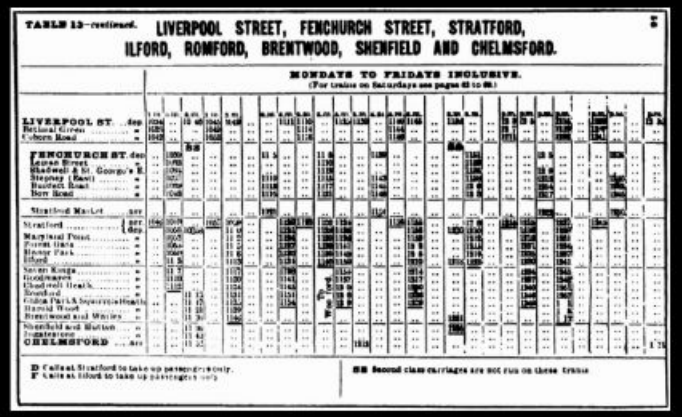


TABLE 13—continued. LIVERPOOL STREET, FENCHURCH STREET, STRATFORD, ILFORD, ROMFORD, BRENTWOOD, SHENFIELD AND CHELMSFORD.

MONDAYS TO FRIDAYS INCLUSIVE.

(For trains on Saturdays see pages 45 to 48.)

LIVERPOOL ST. dep
Bethnal Green "
Cohen Road "

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

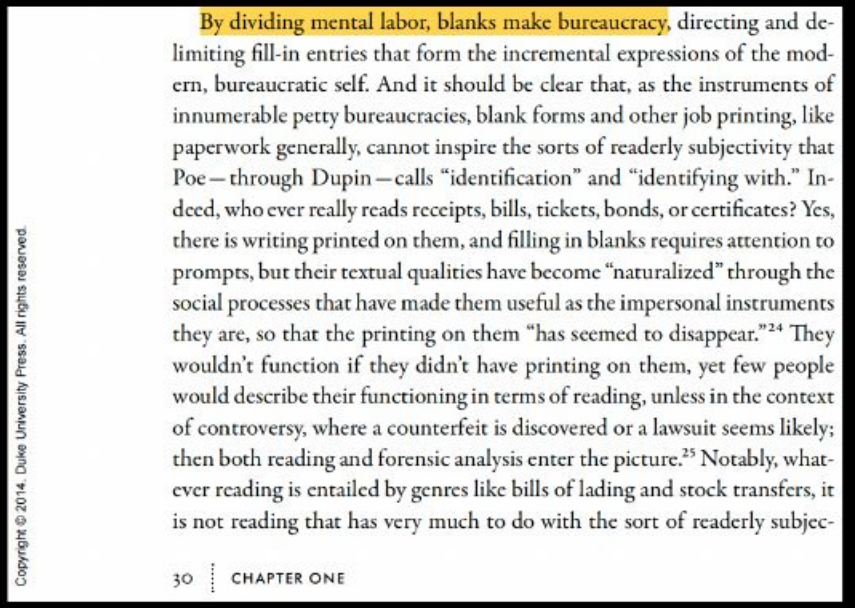
Stratford Market arr

Stratford arr
dep
Maryland Point "
Forest Gate "
Manor Park "
Ilford "
Seven Kings "
Goodmayes "
Chadwell Heath "
Romford "
Gidea Park & Squirrel's Heath "
Harold Wood "
Brentwood and Warley "
Shenfield and Hutton "
Ingatestone "
CHELMSFORD arr

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

HH Second class carriages are not run on these trains.

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-

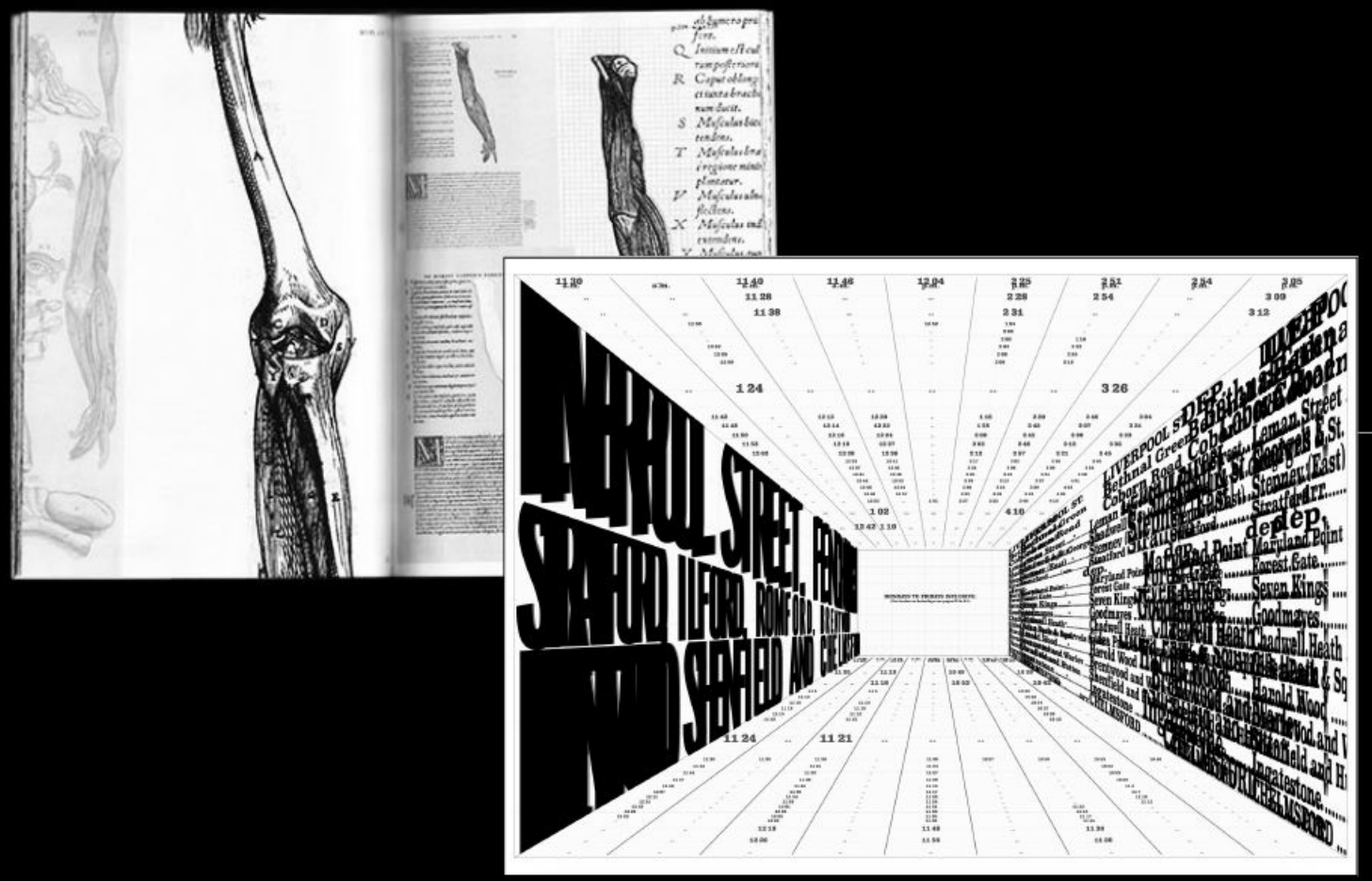
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Kinross, R. (1985) The rhetoraic of neutrality,
Fig. 1: the 1928 LNER timetable

Gitelman, L. (2014) *Paper Knowledge*

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

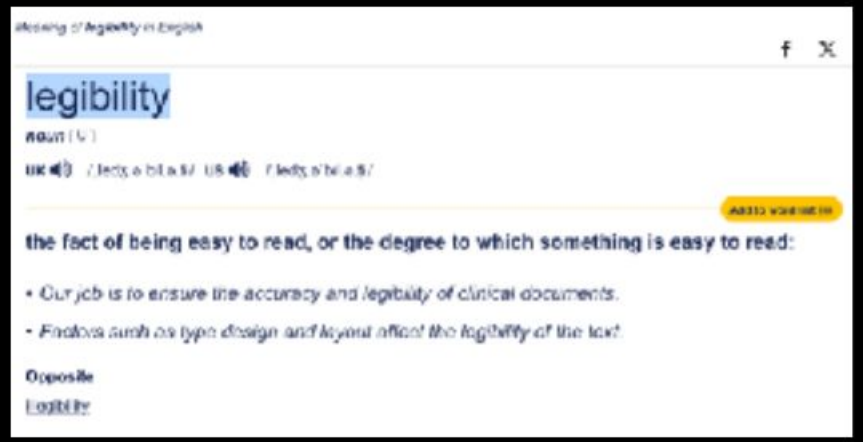
*Look back_* Legibility



legibility

*Grid system_* Fitted rather than read

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



legibility

noun

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

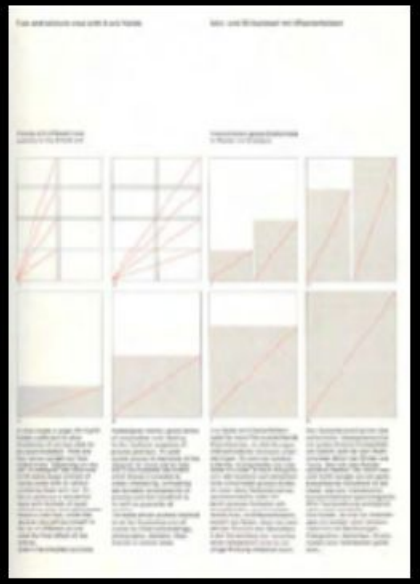
Meaning of legibility in English (Cambridge Dictionary)

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, J. C. (1998) Seeing Like a State, p. 2

*Grid system_* Whose universal?

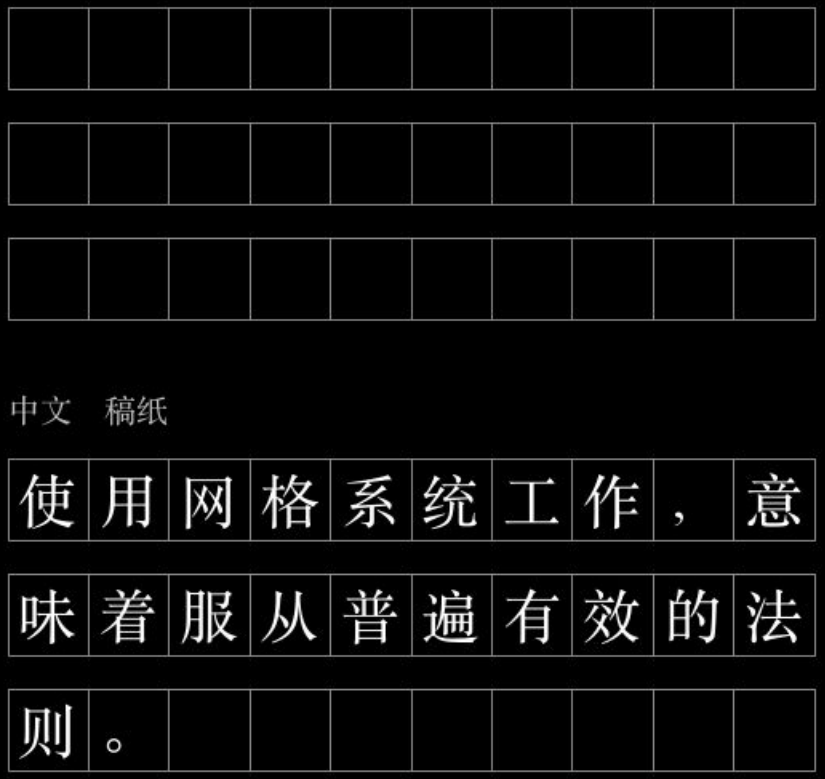
Müller-Brockmann calls the grid's laws **universal**. Yet when Univers appeared, it was promoted as a typeface for "any language using Latin characters" (Kinross, 1985, p. 23). Square character scripts already carry their own grid, built from the character itself.



Müller-Brockmann, J. (1981) Grid Systems in Graphic Design: the module is drawn first

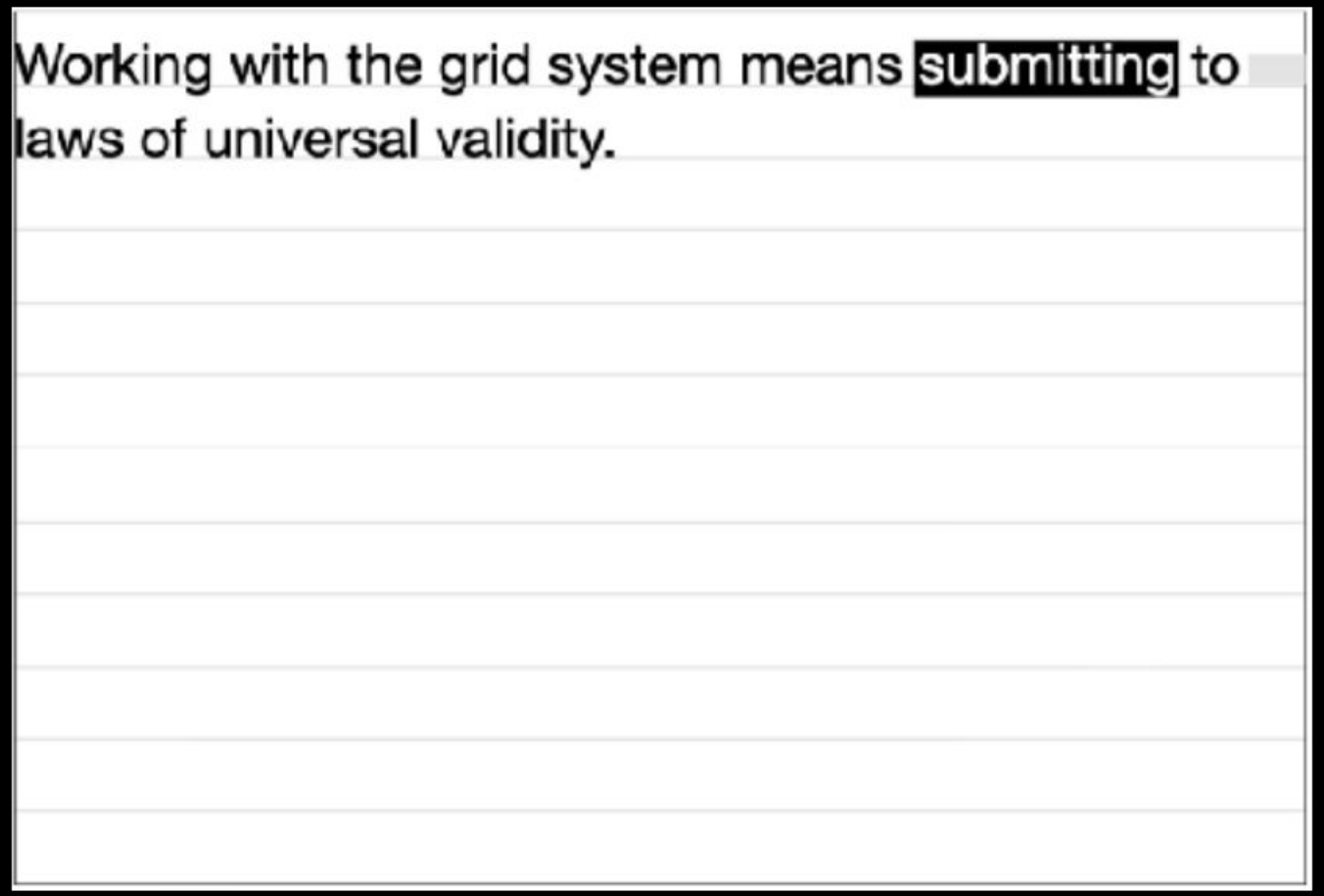
"…any language using Latin characters."

Kinross, R. (1985) The rhetoric of neutrality, p. 23, on the launch of Univers (Frutiger, from 1954)



*Testing_* One sentence, different grids

"Working with the grid system means **submitting** to laws of **universal** validity" (Müller-Brockmann, 1981, p. 10), set three times.

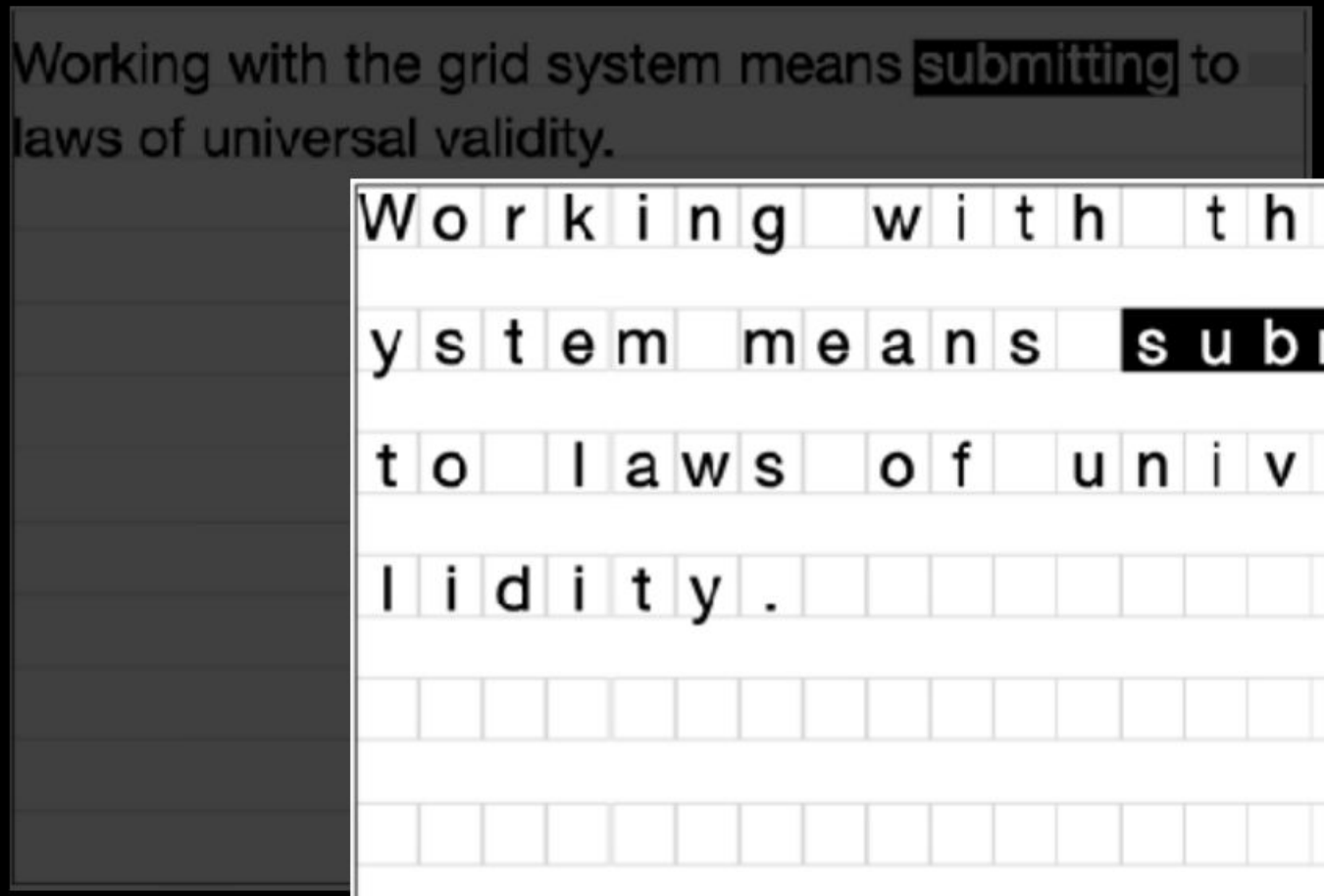


Original

https://taogcd.github.io/whose-universal/

*Testing_* One sentence, different grids

"Working with the grid system means **submitting** to laws of **universal** validity" (Müller-Brockmann, 1981, p. 10), set three times.

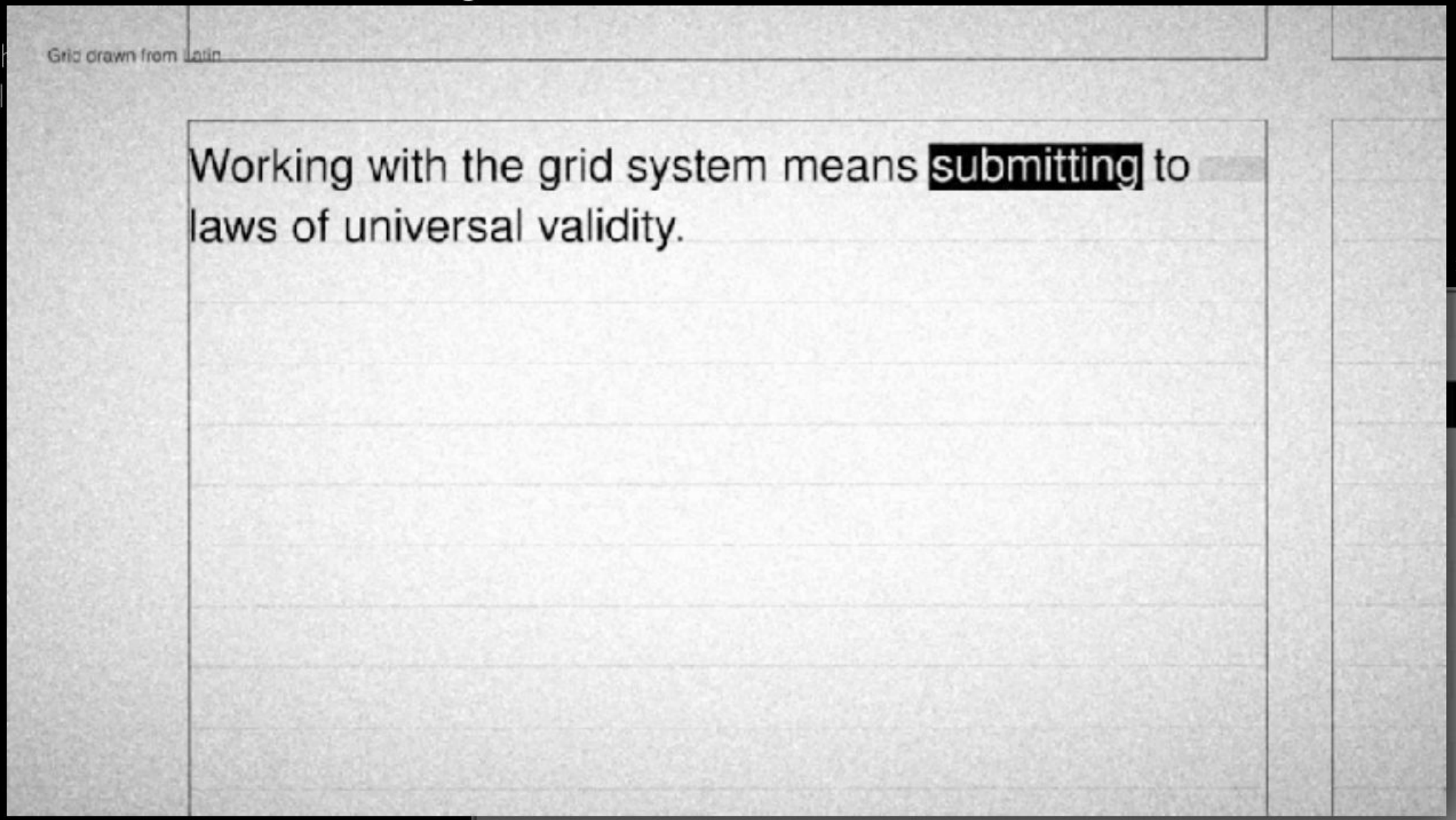


Original

In Chinese grid

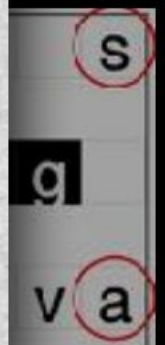
*Testing_* One sentence, different grids

"Working with
validity" (Mül



In Different grid

In Chinese grid



https://taogcd.github.io/whose-universal/

*Summarize_* Video

My position has moved from asking whether design is **neutral** to asking which elements of the modernist grid embody **bureaucracy** and which leave room for **the designer's discretion**, now that the grid is built into design software and given before we begin.

Thanks