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70 qualitatum et velocitatum difformium. 8ᵐ de mensura et intensione in infini-
tum quarundam difformitatum. 9ᵐ de quodam [alio] exemplo. 10ᵐ quoddam
aliud exemplum de difformitate composita ex partibus uniformibus et
uniformiter difformibus. 11ᵐ de mensura et extensione in infinitum qualitatis
finite seu velocitatis. 12ᵐ de infinita extensione secundum quid et mensura
75 qualitatis finite et uniformis. 13ᵐ de infinita extensione simpliciter qualitatis
finite atque difformis.

[Capitula prime partis]

[I.i]   Capitulum primum de continuitate intensionis

Omnis res mensurabilis exceptis numeris ymaginatur ad modum quanti-
tatis continue. Ideo oportet pro eius mensuratione ymaginari puncta, lineas
5 et superficies, aut istorum proprietates, in quibus, ut vult Philosophus,
mensura seu proportio per prius reperitur. In aliis autem cognoscitur in
similitudine dum per intellectum referuntur ad ista. Etsi nichil sunt puncta
indivisibilia aut linee, tamen oportet ea mathematice fingere pro rerum
mensuris et earum proportionibus cognoscendis. Omnis igitur intensio
10 successive acquisibilis ymaginanda est per lineam rectam perpendiculariter

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70 qualitatum *om. L* | qualitatum et velocita-
tum: velocitatum qualitatis *C* / difformium:
difformiter difformium *E* | et² *om. S* | inten-
sione *corr. ex* extensione (*vid. cap. III.8*) |
in *om. FM*
71 difformitatum: difformitatum difformiter
difformibus (*!*) *A* qualitatum *E* | quodam:
quorundam *F* | [alio] *supplevi, cf. III.ix.1*
71–72 quoddam...de: de quodam alio exem-
plo et *N*
72–73 de (et *N*)...difformibus *BFMNS om.*
P difformitatis composite ex partibus uni-
formibus *A* de difformitate *ELC*
73 et: seu *E*
74 seu: vel *N* sive *AE* | secundum: propter
EL | quid: quam *A*
75 uniformis: uniformitatis *E* | infinita ex-
tensione simpliciter *BFM et cf. III.xiii.1*
extensione simpliciter infinita *AELNPSC*
| qualitatis² *om. M*

76 atque: et *N* | *post* difformis *add. B* Expli-
ciunt capitula tertie partis | *post* difformis
add. E Explicit tabula capitulorum deo
gratias | *post* difformis *add. FM* et sic est
(erit *M*) finis intencionum omnium capi-
tulorum huius libri divisi in tres partes et
cetera | *post* difformis *add. L* Tunc sequitur
prima pars

I.i: AEBVDLNFMPCSG[J]
1 [Capitula prime partis] *B, om. alii MSS*
prima pars tractatus *[J]*
2 Capitulum...intensionis *BVEG om.*
ADLNMS[J] de continuitate intensionis
capitulum primum *F* Primum capitulum
prime partis *P* Prima propositio *mg. C* 1
mg. S
3 Omnes res mensurabiles *NC* | ymaginan-
tur *C*
4 mensurationem *S* mensura *[J]*

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qualities and velocities. 8. On the measure and intension to infinity of certain dif-
formities. 9. Another example of the same. 10. A certain other example of a dif-
formity composed of uniform and uniformly difform parts. 11. On the measure and
extension to infinity of a finite quality or velocity. 12. On the qualified infinite ex-
tension and measure of a finite and uniform quality. 13. On the absolute infinite
extension of a finite and difform quality.

Chapters of Part I

I.i   On the continuity of intensity

Every measurable thing except numbers is imagined in the manner of continuous
quantity. Therefore, for the mensuration of such a thing, it is necessary that points,
lines, and surfaces, or their properties, be imagined. For in them (i.e. the geometri-
cal entities), as the Philosopher has it,[1] measure or ratio is initially found, while in
other things it is recognized by similarity as they are being referred by the intellect
to them (i.e., to geometrical entities). Although indivisible points, or lines, are non-
existent, still it is necessary to feign them mathematically for the measures of
things and for the understanding of their ratios.[2] Therefore, every intensity which
can be acquired successively ought to be imagined by a straight line perpendicular-

I.i
[1] See the Commentary, I.i, line 5.   [2] *Ibid.*, lines 7–9.

4–5 lineas et superficies: superficies et lineas
AP
4 lineas: linea *N*
5 et: aut *G* | ut...Philosophus: secundum
philosophum *[J]* | Philosophus *BVLF-*
MSCGD Aristoteles *AENP*
6 seu: et *M* | per prius: proprius *GS(?)*
prius *E* | autem: aut *A*
7 dum *BVFMSCG* qua *ENL* que *P* qui *A*

/ per intellectum *tr. N post* referuntur / ad
ista *tr. N post* qua *quod stat in loco* dum |
ista: illa *G* | nichil sunt: non sint *G*
8 mathematice *om. AP* | fingere: sumere *E*
9 proportionibus: proprietatibus et propor-
tionibus *M* | igitur: ergo *G* aut *C*
10 ymaginanda est *tr. FM post* intensibilis *in*
linea 11
11 aliquod punctum *BVFMSCG[J]* aliquot

15 caretur latitudo et intensio longitudo. Verumtamen quia extensio est manifestior et palpabilior, ut ita loquitur, et prior cognitione quo ad nos quam sit intensio, et forsan quo ad naturam, ideo non obstantibus predictis ipsa extensio secundum communem usum loquendi attribuitur prime dimensioni, scilicet longitudini, et intensio latitudini. Et quoniam differentia

20 huiusmodi impositionis seu improprietas vocationis nichil facit ad rem sed utroque modo potest idem exprimi, volo sequi modum communem ne propter locutionem inconsuetam illa que dicam minus leviter intelligantur. Extensio igitur qualitatis in nomine dei vocetur eius longitudo et intensio ipsius vocetur latitudo sive altitudo. Sed qualitercunque sit, patet ex dictis

25 quod quidam moderni non bene vocant latitudinem qualitatis ipsam totam, sicut abusio esset per latitudinem superficiei intelligere totam superficiem vel figuram. Nam quemadmodum alique latitudines superficierum sive figurarum inequalium sunt equales ita similiter, sicut postea videbitur, multe latitudines qualitatum inequalium sunt equales aut etiam econverso.

[I.iv] Capitulum 4ᵐ de quantitate qualitatum

Cuiuslibet linearis qualitatis quantitas ymaginanda est per superficiem cuius longitudo seu basis est linea in subiecto quali protracta, ut dicit precedens capitulum, et cuius latitudo seu altitudo designatur per lineam super

5 basim predictam perpendiculariter erectam secundum quod ponit capitulum

15 intensio: intensio vocaretur *N* / Verumtamen *APCE* verum *BVFMSG* verum est tamen *LND* / quia: quod *LND* / extensio: intensio *LND*

16 et² *om. S* / prior: peior *G*

16–17 quam sit intensio *om. D*

17 intensio: extensio *N* / et *om. AP* / ideo: et ideo *FM* ergo *D* / ipsa *om. AP*

18 usum: modum *AEP*

19 scilicet: et i. (id est?) *V* / longitudo *S*

19–22 Et...intelligantur *om. D*

19 Et: Sed *F* / quoniam: quia *AEP* / quoniam differentia *tr. L* / differentia: natura *FM*

20 huiusmodi: huius *B(?)VFM* / seu: vel *AEP* / proprietas *VFM* / vocationis: locationis *P*

21 ne: nec *L*

22 locutionem: modum loquendi *AP* loqua-

tionem *B* / inconsuetum *AP* / illa: ista *N* / intelligitur *N*

23 igitur: enim *V* ergo *S* / dei: domini *NFM*

23–24 eius...vocetur: ipsius *A*

23 eius *om. D*

24 ipsius: eius *LS et tr. S ante* intensio / ipsius *tr. G ante* latitudo / vocetur *ENPFM om. D* vocatur *L* dicatur *BVSCG* / latitudo sive altitudo: altitudo vel latitudo *P* / sive: seu *ED* vel *AP*

24–29 Sed....econverso *om. D*

24 sit *om. N* / ex dictis *om. V*

25 bene vocant *tr. A* quidem bene vocant *S*

26 esset: est *PLN* / latitudinem superficiei *tr. N* / intelligere...superficiem *om. S*

27 vel: sive *FM* aut *A* / Nam quemadmodum: non quemadmodum *S* quia sicut *AEP* quia quemadmodum *N* / alique: quedam *FM* / alique latitudines *tr. V* / sive: aut *A* vel *LP*

should be called latitude and their intensity longitude. Nevertheless, extension as it is thus spoken of is more manifest, more palpable, and prior in our cognition than is intensity.[1] It is perhaps also prior in nature. Therefore, notwithstanding my previous statements, this extension according to the common practice of speech is associated with the first dimension, namely longitude, and intensity with latitude. And since a difference in the application of [a name of] this sort, or an impropriety in naming, actually has no effect and the same thing can be expressed in either way, I wish [accordingly] to follow the common way. I do this so that those things which I say might not be less easily understood because of unaccustomed locution. Therefore, in the name of God let the extension of a quality be called its longitude and intensity its latitude or altitude. But however this might be, it is obvious from the things said that certain moderns do not speak in the best way when they call the whole of the quality its latitude, just as it would be an abuse [of terminology] to understand by the breadth of a surface the whole surface or figure.[2] For just as the breadths of some unequal surfaces or figures are equal, so, as will be seen later, many latitudes of unequal qualities are equal, or vice versa.

I.iv On the quantity of qualities

The quantity of any linear quality is to be imagined by a surface whose length or base is a line protracted in a subject of this kind, as the preceding chapter says, and whose breadth or altitude is designated by a line erected perpendicularly on the

I.iii

[1] See the Commentary, I.iii, lines 15–17.

[2] *Ibid.*, lines 24–27.

28 postea videbitur: patebit postea *AEP*

29 aut: vel *P* / aut...econverso *om. FM* / *post* econverso *add. E* et cetera

I.iv: *BVAPFLSD*—collated throughout; *[MENCGJ]*—also used, but not completely, and then placed in brackets

1 Capitulum...qualitatum *LBVD[CE] om. AS[MN]* 4ᵐ capitulum *P* De quantitate qualitatum capitulum 4ᵐ *F[G]* 4 c *mg. S* 4 *mg. A*

2 linearis (linealis *B*)...quantitas *BFS [GNM]* qualitatis quantitas linealis (linearis *L[ECD]*) *ALP[CDE]* quantitas linealis qualitatis *V* ymaginanda est *tr. AP[E]*

3 seu: vel *AP[E]* / pertracta *P[M]*

3–4 precedens capitulum *tr. AP[E]*

4 seu *LPDF[EMNJ]* sive *BV[CG]* sine *S*

5–6 predictam...qualitatem² / aliquem *A*

5 predictam: productam *LPD[EN]* / secundum...ponit: sicut dicit *P[E]* ut ponit *[N]* sicut ponit *D*

corpus cuius quidem corporis ymaginati basis est superficies ipsa informata
qualitate prout plenius declarabitur in processu. Cum autem in corpore
quali infinite sint superficies [equales] et cuiuslibet earum qualitas ymagine-
tur ut corpus, non est inconveniens, sed oportet, ymaginari unum corpus
35   secundum situm ubi aliud potest ymaginari simul, vel etiam quodlibet simul,
per penetrationem vel per mathematicam suppositionem (/superpositionem?)
seu simul positionem corporum sic fictorum; que tamen penetratio non est
in re. Et quamvis qualitas superficialis ymaginetur per corpus, et non con-
tingat esse vel ymaginari quartam dimensionem, tamen qualitas corporalis
40   ymaginatur habere duplicem corporeitatem: unam veram ad extensionem
subiecti secundum omnem dimensionem, aliam vero solum ymaginatam ab
intensione ipsius qualitatis infinities replicabilem secundum multitudinem
superficierum subiecti, cuius ymaginationis op⟨p⟩ortunitas prius tacta est et
in sequentibus plenius apparebit.

[I.v] Capitulum 5ᵐ de figuratione qualitatum

Omnis qualitas linearis figuratur ad modum alicuius superficiei super
subiectam lineam perpendiculariter erecte. Sit enim *AB* linea informata
qualitate [Fig. 1]. Et quoniam per precedens capitulum qualitas ista designa-
tur per superficiem, oportet quod ymaginetur figurata sicut superficies per
5   quam ipsa designatur vel ymaginatur. Cuius quidem superficiei altitudo
designat intensionem istius qualitatis. Oportet etiam quod istius superficiei

as a body whose base is the surface informed with the quality. This will be more
fully clarified as we go along. Moreover, since in any kind of a body there is an
infinite number of equivalent[4] surfaces and the quality of any one of them is imag-
ined as a body, it is not unfitting but necessary that one body be imagined to be at
the same time in the place where another body—or even any other body whatever
—is imagined to be. [We can think of this taking place] by penetration or by math-
ematical superposition[5] or the simultaneous placing of the bodies so imagined.
However, this penetration is not real. And although a surface quality is imagined
by means of a body and it does not happen that a fourth dimension exists or is
imagined,[6] still a corporeal quality is imagined to have a double corporeity: a true
one with respect to the extension of the subject in every dimension and another
one that is only imagined from the intensity of this quality taken an infinite number
of times and dependent upon the multitude of surfaces of the subject. The suitable-
ness of this imagined concept has been touched upon before and will be more fully
apparent in what follows.

I.v On the figuration of qualities

Every linear quality is "figured" (i.e., represented in figures) by means of a sur-
face perpendicularly erected upon a subject line. For let *AB* be a line informed
with a quality [see Fig. 1]. And since by the preceding chapter this quality is des-
ignated by a surface, it is necessary that it be imagined as "figured" by the surface
by which it is designated or imagined. The latitude of this surface designates the in-
tensity of this quality. It is necessary also that any point of this surface or figure out-

31 superficies ipsa *tr. A*
32 prout...declarabitur: sicut plenius patebit
  A sicut patebit plenius *P[E]* ut post decla-
  ratur *[N]* / in processu *om. [N]* / Cum:
  nunc *F[M]* / autem: igitur *V*
33 sint: sunt *AF[M]* / [equales] *BVAPSL*
  [EGCN], sed delendum est, sicut in F[M]?
33-34 ymaginatur *F[MN]*
34 sed oportet *om. L* / sed: sed forte *F[MN]* /
  post ymaginari *add. S* sit
35 secundum situm: sic fictum *F[N]* situm *S*
  sic infinitum *[C]* / ubi...simul¹: simul esse
  ubi aliud *AP[E]* / vel: aut *A* / quodlibet:
  quomodolibet *F[M]* quolibet *S* quotlibet
  [E] / simul²: sive *A*
36 penetrationes *L[C]* / vel: seu *VF* / per
  BSF[CGM] om. V etiam per *AP[EN]*
  etiam *L* / suppositionem: positionem *V*

37 positionem: possent *V* / sic *om. AL* / fic-
  torum *BVSF[MN]* situatorum *APL[E]*
  sitorum *[G]* finitorum *[C]* / *post* fictorum
  add. L secundum infinitatem
38 qualitas *om. L* / ymaginatur *P[N]* / et²:
  tamen *L* et tamen *[N]*
38-39 contingat *BVFS [MGN]* conting⁴
  APL contingit *[EC]*
39 tamen *VPLS[EGC]* cum *BAF[M,?N]*
40 *post* duplicem *add. S* ipse
41-42 aliam...multitudinem *om. S*
41 vero *om. F[M]* / solum *VAPF[EGC]*
  solam *BL[MN]* / solum ymaginatam *tr. A*
42 replicata *L*
44 in sequentibus: post *[N]* / in...apparebit:
  postea plenius patebit *AP[E]*

[4] The Latin text appears to have *superficies
equales.* Either the *equales* ought to be deleted,
or it is used with the meaning of surfaces that
are equivalent or equal in thickness. One
would suppose that Oresme would have con-
ceived of them as being of infinitely small
thickness, syncategorematically speaking, i.e.,

that they are thinner than any assignable
quantity.
  [5] All manuscripts except *V* (which has *posi-
tionem*) have *suppositionem.* However, *super-
positionem* makes much better sense and so I
have rendered it such in my translation.
  [6] See the Commentary, I.iv, line 39.

I.v: *BVAPFLD [ENMCGS]*
1 Capitulum...qualitatum *BVLD[EC] om.*
  A[M] 5ᵐ capitulum *P* De figuratione
  qualitatum capitulum 5ᵐ *F[G]* Capitulum
  5ᵐ *[NS]* 5 c *mg. S* 6 *mg. A*
2 lignealis *A*
3 lineam *om. [S]* lignealem *A*
4 quoniam: quia *AP[EN]*

6 ipsa *om. LD[N]* / vel: aut *A* / vel ymagi-
  natur *om. D*
7 intensionem...qualitatis: qualitatem in-
  tensionem *A* / istius¹ *om. ALPD[N]* /
  Oportet: et oportet *AP[E]* / etiam *om.*
  AP[E] igitur *G* / istius²: illius *AP* iᵘˢ *[E]*
  alicuius *[S]* / superficie *A*

in altitudine. Igitur erit proportionalis cuilibet quadrangulo rectangulo super *AB* constituto, eo quod omnes tales sunt proportionalis altitudinis quamvis tamen inequalis. Ergo per capitulum 7ᵐ ipsa qualitas est ymagina-

10   bilis per quadrangulum *ABCD* et similiter per quadrangulum *ABEF* maiorem sive etiam per minorem. Quelibet autem talis qualitas dicitur uniformis seu equalis intensionis in cunctis partibus eius.

Rursum sciendum quod aliqua qualitas est ymaginabilis per quadrangulum habentem duos rectos angulos super basim et alios inequales, sicut per

15   quadrangulum *ABCD* [Fig. 6(b)] et per omnem quadrangulum proportionalis altitudinis super basim *AB* constitutum sive fuerit maior sive minor, ut patet ex 7° capitulo. Quelibet autem talis qualitas dicitur uniformiter difformis terminata utrinque ad gradum, ita quod extremum intensius designatur in angulo *C* acuto et extremum remissius in angulo *D* obtuso. Superior vero

20   linea, sicut est linea *CD*, dicitur linea summitatis, vel in relatione ad qualitatem potest vocari linea intensionis quia secundum varietatem ipsius variatur intensio.

[I.xi]   Capitulum 11ᵐ de qualitate uniformi et difformi

Omnis itaque qualitas uniformis ymaginatur per quadrangulum rectangulum et omnis qualitas uniformiter difformis terminata ad non gradum ymaginabilis est per triangulum rectangulum. Omnis vero qualitas uniformiter

5   difformis terminata utrinque ad gradum ymaginanda est per quadrangulum habentem rectos angulos super basim et alios inequales. Omnis autem alia qualitas linearis dicitur difformiter difformis et est ymaginabilis per figuras aliter dispositas secundum multifariam variationem, cuius aliqui modi postea

7 altitudine: latitudine *P*
7-8 cuilibet...altitudinis *om. F (sed habet [M])*
8 tales: scilicet tales *L* scilicet *[C]* | proportionabilis *V*
9 Ergo: igitur *LP [ESM]* | 7ᵐ: 9ᵐ *L*
10 similiter: simpliciter *L*
10-12 ABEF...seu *om. F[M]*
11 minorem: breviorem *V*
12 cunctis: omnibus *LP[AC]*
13 sciendum   *BVF[MSG]*   sciendum est *LP[EANC]* | est ymaginabilis *tr. FP [EM]*
14 rectos: equales *P[A]* | rectos angulos *tr. V[N]*
15-16 proportionabilis *V*

16-17 sive¹....dicitur *om. F[M]*
16 minor: brevior *V*
17 ex 7° *BV[ESG]* in 7° *[N]* 9° *LP[A]* in *[C]*
18 terminata utrinque *tr. LP* | utrinque *B[C]* utrique *LP[G]* ubique *V* utriusque *F[M]* utrimque *[ES]* utrobique *[A]* uterque *[N]* | ad: per *L[N]*
19 C: DC *P* de CDC *[A]*
20 sicut *om. [M]* | est linea *om. F* | linea² *BV[MSG] om. LP[EANC]*
21 quia: que *P*
22 intensio: 7ª *F* intensio 7ª *[M]*

I.xi: BVPFL
1 Capitulum...difformi *om. [MAS]* capitu-

Therefore, it will be proportional to any rectangle constructed on *AB*, because all such rectangles are of proportional, although unequal, altitude. Therefore, by chapter seven, this quality is imaginable by rectangle *ABCD* and similarly by rectangle *ABEF* which is greater and also by one that is less. Moreover, any such quality is said to be "uniform" or "of equal intensity" in all of its parts.
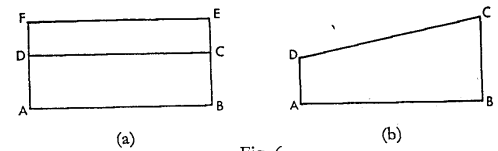

(a)   Fig. 6   (b)

Figures in MSS *BLSCG*. Letters *C* and *D* in figure (a) are interchanged in MS *L*.

Again it ought to be known that some quality is imaginable by a quadrangle having two right angles on the base and the other two angles unequal, e.g., by quadrangle *ABCD* [see Fig. 6(b)] and by every quadrangle constructed on base *AB* which is of proportional altitude, whether it be greater or less, as is clear in chapter seven. Moreover, any such quality is spoken of as "uniformly difform terminated in both extremes at some degree," so that the more intense extreme is designated in the acute angle *C* and the more remiss in the obtuse angle *D*. The superior line, e.g., line *CD*, is called "the line of summit," or in relation to quality it can be called "the line of intensity" because the intensity varies according to its variation

I.xi   On uniform and difform quality

And so every uniform quality is imagined by a rectangle and every quality uniformly difform terminated at no degree is imaginable by a right triangle. Further, every quality uniformly difform terminated in both extremes at some degree is to be imagined by a quadrangle having right angles on its base and the other two angles unequal. Now every other linear quality is said to be "difformly difform" and is imaginable by means of figures otherwise disposed according to manifold variation. Some modes of the "difformly difform" will be examined later. The

lum 11ᵐ *[N]* 11 *mg. [SA]* | Capitulum 11ᵐ *tr. P*
2 itaque: igitur *P[A]*
2-3 rectangulum *om. L*
4 est *om. F[MAC]* | Omnis vero: et omnis *F[M]* omnis ergo *[C]*
4-5 uniformiter difformis *om. L[N]*
5 utrinque ad *BF tr. [N]* utrique ad *P[G]*

utrimque ad *[SE]* utriusque ad *[A]* utrumque ad *[C]* utramque ad *V* ad utrumque *L[M]* | gradum: non gradum *B*
7 qualitas linearis: linealis qualitas *P* linearis qualitas *[E]* lignealis qualitas *[A]* | ymaginabilis: ymaginanda *LP[EANC]*
8 variationem: varietatem *P*

coniungatur basi, qualitas sive difformitas terminatur utrinque ad gradum. Et quoniam talis linea non potest coniungi basi in utroque extremo, quia ipsa est recta et basis recta et sic esset linea una, inde patet quod non potest esse aliqua qualitas uniformiter difformis terminata utrinque ad non gradum.

15 Si vero linea intensionis sive summitatis fuerit curva aut ex multis lineis composita et non una, tunc qualitas per illam figuram ymaginabilis erit difformiter difformis et potest esse quod terminatur utrinque ad gradum vel utrinque ad non gradum vel ad gradum in uno extremo et ad non gradum in altero.

[I.xiv] Capitulum 14ᵐ de simplici difformitate difformi

Difformis difformitatis de qua nunc agitur duo sunt modi; quedam enim est simplex et alia est composita. Et primo dicendum est de simplici. Est igitur simplex difformitas difformis que designabilis est per figuram cuius
5 linea summitatis sive linea intensionis est una, non composita ex pluribus. Oportet igitur quod sit linea curva; quia si foret recta, iam esset uniformitas simpliciter aut uniformis difformitas, ut patet ex capitulo precedenti. Necesse est etiam quod eius curvitas non attingat ad circuli portionem maiorem semicirculo ita ut angulus super basim sit maior recto, ut patuit ex 4° (/5°)
10 capitulo. Potest tamen fieri ut angulus super basim sit minor recto etiam quantumlibet.

Sit igitur, gratia exempli, linea *AB*, cuius qualitas sit designabilis per semicirculum *ACB* [Fig. 10], quod est possibile, ut patet ex 7° capitulo Nunc itaque dico quod eadem qualitas linee *AB* est ymaginabilis seu designa
15 bilis per figuram maioris altitudinis ac etiam minoris isto semicirculo etiam quantumlibet. Protrahatur enim linea *CD* perpendicularis super centrum *D*

11 terminatur *tr.* P *post* gradum / utrinque B utrїque P utrobique *VL[EAN]* ad utrumque *F[MG]* utrimque *[S]* / ad: ad non *P[A]*
12-14 Et...gradum *om. F[M]*
12 non *om.* L / quia: quoniam *L[A]* nam *[E]*
13 linea: linea recta *L*
14 terminata utrinque: utrobique terminata usque *P[E]* terminata usque L terminata utrobique *[AC]* / utrinque *om. BLF[N]* utrїque *[G]* utrimque *[S]* utrobique *VP[EAC]*
17 difformis: difformis terminata V / esse... terminatur: etiam terminari L etiam quod terminari *[E]* / utrinque¹·² *BP[N]* utro

bique *V[C]* utriusque *F[MA]* utrimque *[SE]* utrїque *[G]* / utrinque...utrinque *om. L*
17-18 vel...gradum³ *om. [M]*
18 altero *E* a° *B[AN]* alio *FLV[SPMCG]*

I.xiv: BVLPF
1 Capitulum...difformi *[om. MANS]* 14 *mg. [SA]* / Capitulum 14ᵐ *tr.* F *post* difformi
2 ago *F[M]* / quedam *bis* B quidem *[A]*
2-3 enim est *tr.* P autem est *[A]*
3 est¹*om.[C]* / et *om. LP[EG]* / alia: quedam *F[MN]* aliaque *[G]* / est² *VLP[ACS] om. BF[EMNG]*

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and if it is joined to the base in neither extreme the quality or difformity is terminated in both extremes at [some] degree. And since such a line cannot be joined to the base in both extremes—for it is a straight line and thus would form a single line with the base which also is a straight line—it is clear that there cannot be a quality uniformly difform terminated in both extremes at no degree. Further, if the line of intensity or summit line is a curve or is composed of several lines rather than one, then the quality imaginable by that figure will be difformly difform, and it can be that it is terminated in both extremes at some degree, or in both extremes at no degree, or at some degree in one extreme and at no degree in the other.

I.xiv   On simple difform difformity

We now treat of difform difformity; there are two modes of such difformity: simple and composite. We must first talk of the simple mode. Simple difform difformity is that which can be designated by a figure whose line of summit or line of intensity is a single line, i.e. not composed of several lines. It is necessary, therefore, that the line be a curve; because if it were straight, then it would be simply a uniformity or uniform difformity, as is clear from the preceding chapter. Furthermore, it is necessary that the curvature of the summit line does not attain that of a circular segment greater than a semicircle so that the angle[1] on the base is greater than a right angle, as was clear in chapter five.[2] However, it can happen that the angle on the base is less than a right angle by any amount you please.

Therefore, for example, let there be line *AB*, whose quality can be designated by semicircle *ACB* [see Fig. 10]. This is possible, as is evident from chapter seven. And so I now say that the same quality of line *AB* is imaginable or can be designated by a figure having an altitude greater or less than that of the semicircle by any amount you please.[3] For let line *CD* be drawn as a perpendicular to center *D* and

I.xiv
[1] In this case the angle would be a mixed angle composed of the curve and the straight base line.

[2] All the manuscripts have "chapter 4," but this is a clear reference to the penultimate sentence in I.v.
[3] See the Commentary, I.xiv, lines 14-54.

5 sive: seu *BF[EMC]* / pluribus: partibus L partibus pluribus *[N]*
6 quia: que *P[EA]* / foret: esset linea *F[M]* foret linea *[E]* esset *[C]* / esset: foret *P[E]* forent *[A]*
9 ut¹ *BVF[ACGS]* quod *LP[EMN]* / patet L / ex *om. P[A]* / 4° capitulo *BVF[MS] tr. LP[EANGC]*

10 etiam: et *P[G]*
13 ACB *BV[FM]* ABC *PL[AENGCS]* / patuit V / 7° capitulo *tr. P[E]* 4° capitulo *F[M]* capitulo alio *[A]*
14 linea B
15 maioris *om.* L / ac: aut *P[A]* / ac etiam *om.* L
16 supra *LP[M]*

Deo, de quo scriptum est in libro Danielis quod "ipse revelat profunda et abscondita, et novit in tenebris constituta."

Incipit secunda pars
huius tractatus de difformitate
successivorum

[II.i]   Capitulum primum de duplici difformitate motus

5   Omnis motus successivus subiecti divisibilis habet partes et est divisibilis uno modo secundum divisionem et extensionem seu continuitatem mobilis, alio modo secundum divisibilitatem et durationem seu continuitatem temporis, tertio modo saltem ymaginative secundum gradus et intensionem velocitatis. A prima autem continuitate dicitur motus magnus vel parvus, a
10   secunda brevis aut longus, a tertia velox aut tardus. Habet itaque motus duplicem extensionem, unam subiectivam et aliam temporalem, et habet unam intensionem. Due autem extensiones possunt ymaginari quodam modo orthogonaliter seinvicem ad modum crucis intersecare, ita quod extensio durationis diceretur longitudo et extensio subiectiva vocaretur
15   latitudo, intensio vero posset vocari altitudo ipsius motus seu velocitatis. Sed si iuxta premissa in 3° capitulo prime partis intensio velocitatis appellaretur eius latitudo, tunc utraque extensionum ad intensionem comparata poterit dici longitudo et sic velocitas habebit duplicem longitudinem sicut habet duplicem extensionem, et in utraque istarum extensionum potest in-
20   tensio velocitatis multipliciter variari. Et quoniam difformitas oritur ex eo

28 *post* Danielis *add.* [*G*] 3° (*!*) capitulo
28-29 *de* ipse...constituta *scr. mg. B* in (*?*) Danl' 2 *et mg. A* Daniel 28 (*!*) | et abscondita *om. B* [*P*]
29 et *om. L* | et...constituta *om.* [*C*] *sed add.* et sic est finis illius capituli et per consequens totius tractatus | *post* constituta *add.* [*E*] Explicit prima pars huius tractatus deo gratias *et add.* [*PFM*] Explicit prima pars huius operis *et* [*A*] explicit prima pars *et* [*N*] Et sic finitur prima pars principalis *et* [*G*] Explicit prima pars de intensione qualitatum

Tit. et II. i: BVL
1-3 Incipit (*om. L*)...successivorum *BL*[*A*] *om. V*[*N*] Incipit secunda [*FMP*] Secunda pars de figuratione et potentia successivorum [*G*] Secunda pars particularis *mg.* [*C*] Incipit pars secunda [*E*] secunda pars *mg.* [*S*] Secunda pars [*J*]
4 duplici *om. L*

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or by good or bad angels, or immediately by God, of whom it has been written in the book of Daniel[2] that "He revealeth deep and hidden things and knoweth what is in darkness."

Here begins the second part
of this tract and it treats of the difformity
of successive things

II.i   On the double difformity of motion

Every successive motion of a divisible subject has parts and is divisible in one way according to the division and extension or continuity of the mobile, in another way according to the divisibility and duration or continuity of time, and in a third way—at least in imagination—according to the degree and intensity of velocity. From its first continuity motion is said to be "great" or "small"; from its second, "short" or "long," and from its third, "swift" or "slow." And so motion has two extensions, one that pertains to the subject and the other that pertains to time, and one intensity. Now the two extensions can be imagined in a certain way as mutually intersecting at right angles in the manner of a cross,[1] so that the extension of duration ought to be said to be "longitude" and the extension in subject ought to be called "latitude," while the intensity could be called the "altitude" of this motion or velocity. But according to what was premised in the third chapter of the first part, if intensity of velocity were to be called its "latitude," then each of the extensions in relationship to intensity could be called "longitude," and so velocity will have a double longitude just as it has a double extension, and in each of these extensions the intensity of velocity can be varied in multiple ways. And since dif-

[2] *Daniel* 2:22.

II.i
[1] See the Commentary, II.i, lines 12-13.

5 subiecti: sive *L*
6 extensionem et divisionem *L* | continuationem *V*
7 et: temporis et *L*
7-8 temporis: eiusdem *L*
10 aut[1,2]: vel *L*

12 Due: que (*?*) *L*
13 ortogonaliter *B*[*SG*] | se-: seu *L* | seinvicem *tr. V post* crucis
15 posset *BV*[*AFCM*] potest *L*[*ENSG*] possit [*P*]
16 intensio: in tempore [*PFM*]

[II.iii]   Capitulum 3ᵐ de quantitate intensionis velocitatis

Cum utraque uniformitas motus primo capitulo posita consistat in inten-
sionis equalitate et utraque difformitas ex inequalitate proveniat premitten-
dum est penes quid attendatur quantitas gradualis intensionis ipsius veloci-
tatis. Verumptamen circa velocitatem tria sibi invicem propinqua possunt
5   considerari. Unum est quantitas ipsius velocitatis totalis pensatis intensione
et extensione, et de hoc dicetur in tertia parte huius tractatus que erit de
mensuris qualitatum et velocitatum. Aliud quoque potest ibi considerari,
scilicet denominatio qua subiectum dicitur tale fieri velocius aut tardius, de
10   quo etiam dicetur in capitulo sequenti. Tertium est ipsa gradualis intensio
que facit ad istud propositum, et de qua nunc dicendum est. Dico ergo quod
universaliter ille gradus velocitatis est simpliciter intensior sive maior quo in
tempore equali plus acquiritur vel deperditur de illa perfectione secundum
quam fit motus. Verbi gratia, in motu locali ille gradus velocitatis est maior
15   et intensior quo plus pertransiretur de spatio vel de distantia, et in altera-
tione similiter ille gradus velocitatis est maior quo plus acquireretur vel
deperderetur de intensione qualitatis, et ita in augmentatione quo plus
acquireretur de quantitate et in diminutione quo plus deperderetur de quan-
titate vel de extensione, et ita generaliter ubicunque reperiretur motus.

[II.iv]   Capitulum 4ᵐ de diversis modis velocitatis

Non est pretermittendum quod idem motus vel fluxus multis nominibus
diversimode connotantibus appellatur et secundum hoc velocitas denomi-
nans diversimode attenditur sive mensuratur, ita quod quantitas intensionis
5   gradualis multis modis assignatur, quibus tamen convenit descriptio prius
dicta in capitulo precedenti.
Verbi gratia, primo in motu circulari mobile dicitur moveri et dicitur

II.iii   On the quantity of the intensity of velocity

Since each uniformity of motion posited in the first chapter consists in equality
of intensity and each difformity arises from inequality [of intensity] we ought to set
out first [the measure of gradual intensity, i.e. we ought to specify] with what the
gradual intensity of the velocity is measured. However, in the matter of velocity
three closely related ideas can be considered. One is the total quantity of the veloci-
ty taking into account both intensity and extension. I shall speak of this in the
third part of this tract, which will be concerned with the measures of qualities and
velocities. Another thing to be considered in connection with velocity is the denom-
ination in terms of which a subject is said to become such a kind more quickly or
more slowly. I shall also speak of this in the following chapter. Third, there is the
gradual intensity [of velocity]. This is the subject which must now be considered.
Therefore, I say universally that that degree of velocity is absolutely more intense
or greater by means of which in an equal time more is acquired or lost of that
perfection according to which the motion takes place.[1] For example, in local mo-
tion that degree of velocity is greater and more intense by means of which more
space or distance would[2] be traversed. In alteration, similarly, that degree of
velocity is greater by means of which more intensity of quality would be acquired
or lost; and so in augmentation, by means of which more quantity is acquired, and
in diminution, by means of which more quantity or extension is lost. And so gen-
erally [our definition would hold] wherever motion would be found.

II.iv   On diverse ways of [considering] velocity

We must not overlook the fact that the same motion or flux is called by many
names that connote a variety of things, and, according to the denomination, veloci-
ty is attended or measured in a variety of ways, so that the quantity of gradual in-
tensity is assigned in diverse ways, with which, however, the definition stated
earlier in the preceding chapter is in accord.
For example, first, in circular motion a mobile is said "to be moved" and it is

II.iii : BVL

1 intensionis velocitatis *tr. L[E]*
2 primo: ex primo *L[EN]* | posita *om. L[E]*
8 quoque: etiam *L*
9 aut: vel *L[G]* sive *[A]*
11 istud *V[ESN]* illud *L[PM]* iᵈ *B[AFCG]*
| et *B[AFMPCSG] om. LV[EN]* | qua:
quod *L* | dicenda *B* | ergo *BV[APCGM]*
igitur *L[ENFS]*
11–12 quod universaliter *tr. L[EN]*
12 universaliter *tr. [FMP] ante* est | quo: alio

[FMP]

14 velocitatis: motus vel velocitatis *[FMP]*
14–15 maior et intensior *B[SG]* maior (quo
plus acquiretur aut deperderetur de inten-
sione) et intensior *[A]* maior vel intensior
[FMP] maior sive intensior *[C]* intensior
et maior *L[EN]* intensior sive maior *V*
16 velocitatis *om. V*
17 de: in *B*
18 acquireretur *om. V*
19 reperiretur *BV[AFSG]* reperitur*[ENMP*

II.iii
[1] See the Commentary, II.iii, lines 11–14.   [2] *Ibid.*, line 15.

C] reperiuntur *L*

II.iv : BVL

2 idem: idem est *L*
2–3 nominibus diversimode *tr. LV*

3–4 denominans: denominata *L[E]* deno-
minata nominans *[N]*
4 *post* quod *add. B* quantitas intensionis sive
mensuratur ita quod
7 movere *V*

De configurationibus qualitatum et motuum

motu sed tamen reducibiles ad premissas. In motu enim quandoque est
5 successio secundum inceptionem. Verbi gratia, in motu locali possibile est
quod aliquod mobile totum simul incipiat moveri et possibile est quod
incipiat moveri pars post partem, sicut si punctus D [Fig. 15] ymaginetur
fluere super mobile *AB* ita quod pars ipsius mobilis *AB* pertransita a
puncto D moveatur et pars nundum pertransita quiescat donec pertransea-
10 tur a puncto D, sicut esset de virga plicabili que sic inciperet moveri. Hoc
autem precise habet locum in motu alterationis ubi reperitur successio secun-
dum partes quantitativas subiecti ac etiam in generatione forme substan-
tialis materialis; in qua generatione est successio secundum partes quantitati-
vas sive secundum extensionem, non tamen secundum partes graduales et in-
15 tensionem, sicut est in generatione ignis. Huiusmodi vero successio assimila-
tur quodam modo motui locali, sicut patet in exemplo nunc posito de motu
puncti D, et quodam modo assimilatur augmentationi secundum hoc quod
continue plus et plus sive maior et maior portio de subiecto movetur, vel
quod plus est generatum de forma. Et omnis successio que in hoc reperitur
20 aut est secundum partes subiecti aut secundum partes temporis aut secun-
dum velocitatem istius successionis secundum quod in exemplo posito
punctus D ymaginaretur moveri velocius aut tardius, et sic totum reducitur
ad tres divisibilitates in primo capitulo assignatas. Propter quod omnis
uniformitas sive difformitas que posset in hac successione inveniri reducenda
25 est et continetur sub duobus generibus uniformitatis et difformitatis in primo
capitulo iam positis.

    Adhuc autem potest ymaginari alia successio, omnis enim velocitas est
intensibilis et remissibilis. Eius vero continua intensio vocatur velocitatio et
hec quidem velocitatio seu augmentatio velocitatis potest fieri velocius aut
30 tardius. Unde quandoque contingit quod velocitas intenditur et velocitatio
remittitur, quandoque vero utraque simul intenditur. Et similiter huiusmodi
velocitatio aliquando fit uniformiter et aliquando difformiter et diversimode.
Sed quoniam omnis divisibilitas sive successio que in huiusmodi velocita-
tione reperitur est aut secundum partes subiecti aut secundum partes tem-

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these however are reducible to those premised. For sometimes in motion there is succession according to inception. For example, in local motion it is possible that the whole of some body begins to be moved at the same time, but it is possible [at another time] that one part begins to be moved after another. A case in point is if point d [see Fig. 15] is imagined to flow over mobile *AB* so that the part of mobile
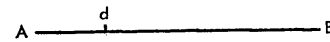
A ——————————— d ——————————— B

Fig. 15
Figure in MS *B*.

AB traversed by point d is moved and the part not yet traversed remains at rest until traversed by point d, as in a pliable rod which would begin to be moved in this way. But this is precisely what happens in the motion of alteration where succession is found according to quantitative parts of the subject and even in the generation of substantial, material form. In such generation there is succession according to quantitative parts, or according to extension, but not however according to gradual parts and intensity. An example is in the generation of fire. Succession of this kind is assimilated in a certain way to local motion, as is evident in the example just posited of the motion of point d, and it is [also] assimilated in a certain way to augmentation since there [i.e., in augmentation] continually more and more, or a greater and greater portion, of the subject is moved or more form is generated. But every succession which is found in this [type] is (1) according to parts of the subject, or (2) according to parts of the time, or (3) according to the velocity of the succession—as, in the example posited, point d would be imagined to be moved more quickly or more slowly. And everything thus is reduced to the divisions specified in the first chapter. Accordingly, every uniformity or difformity which could be found in this kind of succession is to be reduced to, and is contained in, the two kinds of uniformity and difformity already posited in the first chapter.

    There can be imagined one further succession, for every velocity is capable of being increased in intensity and decreased in intensity. Now its continuous increase in intensity is called acceleration, and indeed this acceleration or augmentation of velocity can take place more quickly or more slowly.[1] Whence it sometimes happens that velocity is increasing and acceleration is decreasing, while sometimes both are simultaneously increasing. Similarly acceleration of this sort sometimes takes place uniformly and sometimes non-uniformly and in diverse ways. But since every divisibility or succession which is found in acceleration of this sort is according to parts of the subject, or according to parts of the time, or ac-

II.v
[1] See the Commentary, II.v, lines 27–32.

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3 assignatam: ymaginatam V | possunt L[N] | ymaginari BL[AEPCNSG] assignari V[M] assignari aut ymaginari [F]
4 premissa V
5 inceptionem: interruptionem L[E]
7 si punctus: penes [FMPC]
8 pertransita: pertranseat [FMPC]
9 nondum V
11 precise L[ENFC] precipue V[AG] prescise [M] precie B[PS]
14 sive: materie sive L[E]
18 et² L[AESG] ac BV sive [FPC]

19 est generatum BV[AS] tr. [FMP] generatur L[EN]
21 istius: ipsius L | posito om. L
22 ymaginatur L
23 tres: tres divisiones vel L
24 potest L | in...successione om. L
26 iam om. L
27 alia: una alia L | velocitas: successio V
28 continua om. V
31 quandoque: et quandoque V | vero om. V
32 aliquando¹: quandoque L | et om. V
33 omnis om. L | divisibilitas: diversitas L |

que: que est L

34–35 temporis: corporis [FMP]

40   cordias domini in eternum cantabunt, quo cantico in gloriam gratie Christi
      [...] nichil erit profecto illi iocundius civitati."

Incipit tertia pars
de acquisitione et mensura qualitatum
et velocitatum

[III.i]   Capitulum primum: per quid ymaginanda est
5   acquisitio qualitatis

      Duplici modo potest contingere successio in acquisitione qualitatis,
scilicet secundum extensionem et secundum intensionem, sicut superius
fuit dictum capitulo 4° partis secunde. Acquisitio itaque extensiva qualitatis
linearis ymaginanda est per motum puncti fluentis super ipsam lineam subiec-
10   tivam, ita quod pars pertransita sit qualificata et pars nundum pertransita
non qualificata. Sicut si punctus *c* moveretur super lineam *AB* et quidquid
esset ab eo pertransitum esset album et quidquid nundum esset pertransitum
nundum esset album [Fig. 18(a)]. Acquisitio autem extensiva qualitatis
superficialis ymaginanda est per motum linee dividentis partem superficiei

of God in eternity ... certainly there will be no greater joy in that city than this song
to the glory of the grace of Christ."[5]

Here begins the third part
[of this treatise]: On the Acquisition and Measure
of Qualities and Velocities

III.i   How the acquisition of quality is to be imagined

      Succession in the acquisition of quality can take place in two ways: (1) according
to extension, (2) according to intensity, as was stated in the fourth chapter of the
second part. And so extensive acquisition of a linear quality ought to be imagined
by the motion of a point flowing over the subject line in such a way that the part

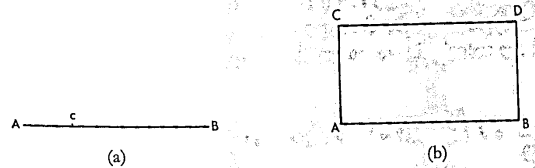(a)   (b)

Fig. 18

Figure (a) in MSS *BG*. Figure (b) in MSS *SJGL*. MS *L* merely has two parallel lines *AB* and *CD*
close together.

traversed has received the quality and the part not yet traversed has not received
the quality. An example of this occurs if point *c* were moved over line *AB* so that
any part traversed by it would be white and any part not yet traversed would not
yet be white [see Fig. 18(a)]. Further the extensive acquisition of a surface quality
ought to be imagined by the motion of a line dividing that part of the surface that

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40 Christi *om. L*
41 profecto *B[AFMSG] text. Aug.* perfecto
   L[VPC] perfectius *[N]* | illi iocundius
   tr. L[N] iocundius *[A]* | *post* civitati *add.*
   [PM] et sic est finis istius. Explicit secun-
   da pars huius tractatus, *et add.* *[F]* et sic
   est finis, *et add.* *[G]* Explicit secunda pars,
   et add. *[A]* Amen. Explicit secunda pars
   huius tractatus, *et add.* *[N]* Explicit secun-
   da pars *et add.* L Sequitur (*!*) pars huius
   tractatus, *et add.* *[S]* et sic explicit pars se-
   cunda

Tit. et III.i: BL
1–3 Incipit...velocitatum *mg. BL[ANG]*
   (except for the variants in B AL below) *om.*
   [VP] Incipit tertia etc. *[M]* Incipit 2ᵃ (*!*)
   pars que est de figuratione et potentia
   qualitatum successivorum *[F]* Tertia pars

seu tractatus altius (alterius?) de acquisi-
tione et mensura qualitatis et velocitatis *[C]*
1 3ᵃ pars *mg. [S], mg. [J]* tertia pars *tr. B*
   tertia pars eiusdem *[A]*
2–3 qualitatis et velocitatis *L*
7 scilicet *om. L[N]*
8 capitulo 4° *[VANFMPSCG]* tr. *BL* |
   partis secunde *B[VANS] tr. L[G]* prime
   partis *[FMPC]* | extensiva *B[AFMPSG]*
   om. [C] extensive *L[VN]*
9 motum *B[VN]* (*et cf. lin. 14, 15, 17–18, 22,*
   25, 30) modum *L[MACSG]* moᵐ *[P]*
   medium *[F]*
9–10 subiectivam *om. L* subiectam *[C]*
10 nundum *B[ANFMP]* nondum *L[VCSG]*
   hic et alibi
12 esset¹ *tr. L post* pertransitum¹ / esset³: est *L*
14 superficialis: linearis *L* | est: esset *L[N]*

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[5] *De civitate Dei,* XXII, 30 (ed. of Dombart,   cantico in gloriam gratiae Christi, cuius san-
Vol. 2, 633–34): "Alioquin si se fuisse miseros   guine liberati sumus, nihil erit profecto illi
nescituri sunt, quo modo, sicut ait psalmus,   iucundus civitati." Augustine is referring to
misericordias Domini in aeternum cantabunt? Quo   *Psalms* 88:2.

ymaginetur ens successivum. Unde in Ysaia dicitur, "erit lux lune sicut lux solis, et lux solis erit septempliciter sicut lux septem dierum," quia videlicet

30   lux unius diei septempliciter intensa equalis est luci que per septem dierum spatium extenderetur.

[III.vii]   Capitulum 7^m de mensura qualitatum et velocitatum
difformium

Omnis qualitas, si fuerit uniformiter difformis, ipsa est tanta quanta foret qualitas eiusdem subiecti vel equalis uniformis secundum gradum
5   puncti medii eiusdem subiecti; et hoc intelligo si qualitas fuerit linearis. Et si fuerit superficialis, secundum gradum linee medie; si vero fuerit corporalis, secundum gradum medie superficiei, semper conformiter intelligendo. Istud ostenditur primo de lineari. Sit igitur una qualitas ymaginabilis per triangulum *ABC* que est uniformiter difformis terminata ad non gradum in
10   puncto *B* [Fig. 21(a)]; et sit *D* punctus medius linee subiective, cuius quidem puncti gradus vel intensio ymaginatur per lineam *DE*. Igitur qualitas que esset uniformis per totum subiectum secundum gradum *DE* ymaginabilis est per quadrangulum *AFGB*, ut patet per 10^m capitulum prime partis. Constat autem per 26^{am} primi Euclidis quod duo parvi trianguli *EFC* et *EGB* sunt

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if it is imagined to be a successive entity. Whence it is said in Isaias:[3] "And the light of the moon shall be as the light of the sun, and the light of the sun shall be seven-fold as the light of seven days," for evidently the light of one day increased intensively by sevenfold is as the light which would be extended through a space of seven days.

III.vii   On the measure of difform qualities and velocities

Every quality, if it is uniformly difform, is of the same quantity as would be the quality of the same or equal subject that is uniform according to the degree of the middle point of the same subject.[1] I understand this to hold if the quality is linear. If it is a surface quality, [then its quantity is equal to that of a quality of the same subject which is uniform] according to the degree of the middle line; if corporeal, according to the degree of the middle surface, always understanding [these concepts] in a conformable way. This will be demonstrated first for a linear quality. Hence let there be a quality imaginable by *AABC*, the quality being uniformly difform and terminated at no degree in point *B* [see Fig. 21(a)]. And let *D* be the middle point of the subject line. The degree of this point, or its intensity, is imag-
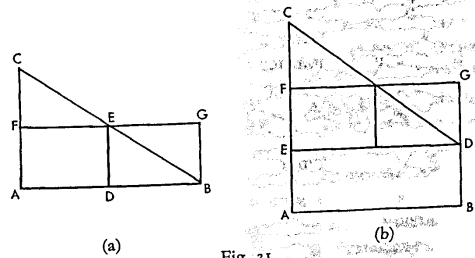

(a)   Fig. 21   (b)

Figures in *BLSJG*. Figures are rotated through 90° in MS *G*. In figure (b) in MS *L*, there is no center perpendicular. In MS *J*, line *ED* is missing and the center perpendicular is marked *KH*. Both figures are reversed in MS *J*.

ined by line *DE*. Therefore, the quality which would be uniform throughout the whole subject at degree *DE* is imaginable by rectangle *AFGB*, as is evident by the tenth chapter of the first part. Therefore, it is evident by the 26th [proposition] of [Book] I [of the *Elements*] of Euclid[2] that the two small triangles *EFC* and *EGB*

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28 ens *B[VAFMPC]* esse *L[SG]* esse ens [N]
29–30 videlicet lux *tr. L* lux *[N]*
31 extenditur *L[S]*

III.vii: BL
3–4 ipsa...uniformis *om. [FMP]*
5 si...linearis: qualitate lineari *B*

7 medie superficiei *tr. L[NS]* superficiei [V] / semper: secundum hoc *L*
8 ostenditur primo *tr. L[G]* ostenditur [FMPC]
11–12 esset *B[VASG]* est *L[NFMPC]*
13–14 Constat autem *B[VSG]* constatque *L[N]* constat et [FMPC]
14 EFC: EFG *B[V]*

III.vii
1 See the Commentary, III.vii, lines 3–5.
2 *Ibid.*, line 14.

3 *Isaias* 30:26.