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Donne's Visual Imagination and Compasses

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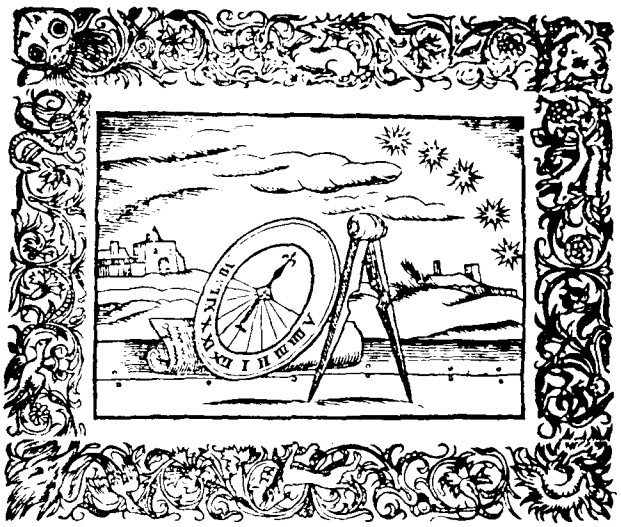
Could there be sufficient cause to return again to Donne's compasses, the "stiff twin compasses"? This visit is not induced by a callow conviction that all the studies in the long and distinguished sequence of studies of the topic have failed to solve the puzzle, or have failed in truth and persuasion. That would be too terrible to contemplate. On the contrary, it is certain that a great deal of what has been written on this matter satisfies these criteria. This essay, by way of considering some representations of compasses in the age of Donne, seeks to probe the relationship of visual representation to poetic conceit in order to enhance our understanding of Donne's imagination: its range, depth and, especially, its centrality to the thought of the age.

Although, as it has been argued, the main feature of Donne's famous conceit—the compasses as emblematic of *constantia* (the "firmness" of the "fixed foot")—is a commonplace of the period, what the poet does with it by extending its range of reference is rare and subtle indeed. A test of this proposition is to consider the uses to which Henry Peacham puts his compasses (or dividers) in his *Minerva Britanna* (London, 1612), composed close to the date we suppose Donne's "A Valediction forbidding mourning" to have been composed (see Figs. I and II, pp. 38-39).

Although ingenious, apt and, therefore, pleasing, Peacham's poem-emblem combinations seem essentially limited — perhaps self-limiting. They are quite without that resonance which characterizes Donne's quasi-emblematic conceit. The very explicitness of the visual component in Peacham brings about the limitation. They are not without intellectual dexterity: both emblems require sophisticated mathematical awareness in the reader for full appreciation. Indeed, it might be argued that mathematical ingenuity is their real subject.[1]

By contrast, the reader of Donne's poem is drawn into the field of play of a powerfully transforming and no less intellectual imagination. The action of reading the poem might be described as follows. Guided from one scene to the next of a series of tableaux composed and presented by the poet as analogues of his mental exploration, the reader would, if he could, linger to arrange their

Ad Sidoniam virginem nobilem.



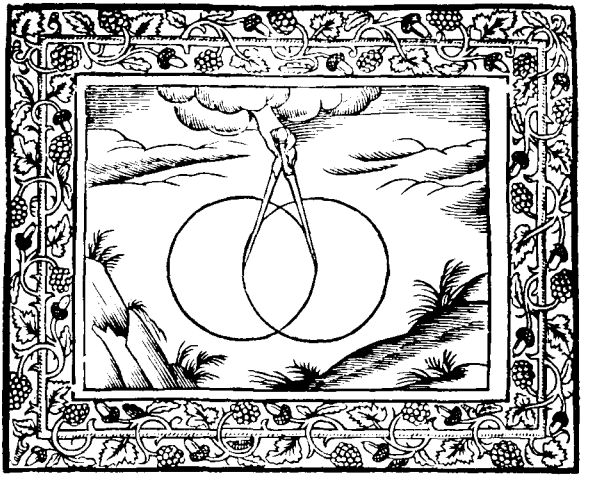
THOV greeu'ſt *Sidonia*, that I thus divide,
My Loue ſo largely, to a ſeverall frend:
While thou, thou think'it, remainedſt vneſpi'de:
Or takeſt thy fortune, at the latter end:
And certes who his loue, impartes to all,
Affectes but coldly, nay loues not at all.

With wonder rapt, though much I doe admire
Some Starres for luſtre, and their glories beſt:
You are that Arctick; moſt I doe deſire,
Whereon my hope, hath wholly ſet her reſt:
And who (ſweete Maide,) when others downe do ſlide,
To vnknowne Fate, muſt be my ſureſt guide.

Figure 1

"Ad Sidoniam," a love poem and emblem arguing the speaker's faithfulness to Sidonia, his Arctick; with dividers and stars (the "Guards" of the pole star?) and a dial.

In Requie, Labor.



EXESSE we loath, of want we moſt complaine,
The golden meane we prooue to be the beſt,
Let idle fits refreſh thy daylie paine,
And with ſome Labour exerciſe thy reſt,
For overmuch of either, duls the ſpright,
And robs our life, of comfort and delight.

If that thou wouldſt acquaint thee with the Muſe,
Withdraw thy ſelfe, and be thou leaſt alone,
Even when alone, as *SOLON* oft did vſe,
For no ſuch frend to Contemplation,
And our ſweete ſtudies, as the private life,
Remote from Citie, and the vulgar ſtrife.

Figure II

"In Requie, Labor," playing upon the active vs. contemplative dichotomy; with dividers and circles intersecting in "golden proportion," as hinted by "golden meane" 1.2. The realm of the divine is connected in perfect mathematical proportion with the plane of the mundane.

elements as visible, and, therefore, fixed furniture on the retina of the mind's eye. But this security, this rest, is denied and withheld until the emblem-like "stiff twin compasses" is offered, only for this, in its turn, to prove unsatisfactory as a visible, or graphically visualized resolution. The determined reader may push on from desire for a resolved image into the realm of thought as mathematics, whence visual furniture dissolves into the geometry of mind. A less rigorous reader, perhaps, (and it seems that there are some such among the published explicators) will settle for a visualized resolution—which must necessarily prove to be an uneasy one—of circle drawn and dividers closed.[2]

I do not wish to claim this pattern of reading Donne's poetry as a paradigm; nor do I claim a priority status for it in respect of the "Valediction." Nevertheless, there is something restless and urgent about the treatment of visual elements in some of the late lyrics and the later Epicedes and Obsequies which places them beyond the class of, say, the ingenious, the apt and the pleasing. Another way to come at this matter is by comparison of Donne's practice with Sidney's prescription for *ut pictura poesis* in his *Apology* where he asserts that a description of a thing never seen before by the listener—he instances a rhinoceros or an elephant—might enable the listener to repeat by rote the attributes of the thing described, whereas a painting of the same object, well executed, would lead to a fuller and higher understanding, a "judicial comprehending." Thus, the definitions of the philosopher lie dark before the imagination and the judgment if they are not figured forth by speaking poesy. Likewise, John Dee's theory of what he is pleased to call "mechanical Zographie" or painting,[3] stresses the wonder of the beholder at representations of what is not physically present, nor yet in being. As with other contemporary accounts of *ut pictura poesis*, the memory plays an essential role *en route* to the goal of raising up painted images in the mind. Interestingly, Donne's achievement in "A Valediction" outstrips the old magician's platonic mathematizing by refusing to call forth a visual image, as if from memory. Rather he, so to speak, unfigures it. Dee ought to have approved.

Of course, Donne is not always reckoned to have much visual imagination: in Romantic eyes, almost none, because of his absence of interest in landscape.[4] For a non-Romantic comparison, take rival Ben Jonson who (as in, for instance, "To Penshurst") allows his reader decorous leisure in which to compose, to scan, and finally to savour the scene as if it were a painting. Compared with him Donne is a tyrannical tour-guide. And a virtuoso: tireless impresario of dramatic scenes, which then he manages to make disappear behind the stage-front controlling intelligence of the poet, and, in some later poems, to make disappear into, as it were, a masque of blackness, leaving only the invisible speaker "visible" to the inner eye as object of contemplation. Witness these lines from "Obsequies to the Lord Harrington," addressed to his lordship's soul, which is envisaged as in transit "Twixt heav'n and earth":

> See, and with joy, mee to that good degree
> Of goodnesse growne, that I can studie thee. (ll. 9-10)

But where should his lordship's soul direct its gaze?

> Thou seest mee here at midnight, now all rest;
> Times dead-low water; when all mindes devest
> To morrows businesse. (ll. 15-17)

And a second time he insists,

> Thou at this midnight seest mee, and as soone
> As that Sunne rises to mee, midnight's noone,
> All the world growes transparent, and I see
> Through all, both Church and State, in seeing thee. (ll. 25-28)[5]

The poet who in this poem seeks to negate all ocular proof in his quest to "discerne" the "selfe, the hardest object of the sight" (l. 30), does so not through etiolation of the visual imagination, but rather because of its very strength, its luxuriousness. The strength of Donne's visual imagination has been achieved, that is, by much exercise, not in the study of landforms, landscapes, views and the like, such as those Wenceslaus Hollar depicts,[6] but rather in the woodcuts and, especially, the copper engravings of printed books, maps and cartes. To give an obvious instance: nobody will suppose that the "huge hill, / Cragged, and steep" of Satyre III derives from an interest in geomorphology, nor is it like Hollar's later rendition of a huge, cragged rock on the Rhine. It is much more likely to derive from one or another of the woodcuts found, not uncommonly, on the title pages of learned works in the mathematical sciences which depict a female form (Sophia or Philosophy, or perhaps Fortune) atop an allegorically conceived hill into which a steep winding path is set. A particularly striking example is the title page of John Dee's *The Perfect Arte of Navigation* (London, 1577): see Fig. III, p. 42.

It may not be too fanciful to suppose that the first contemplation on a book of the young John Donne focused on the engraved map of the Holy Land which appears for the first time in the second edition of the Bishops' Bible of 1572, the year of his birth. This flat map shows, of course, Jerusalem, his "home" in "Hymne to God my God, in my sicknesse." It is the work of Humphrey Cole (1530-1591) who identifies himself in a cartouche as a "goldsmith." He is the earliest of the native English copper engravers (prior to him it was a European skill), and a friend of Thomas Geminus (d. 1562), and probably his apprentice, who put his name to a map of the British Isles prepared by English Catholic

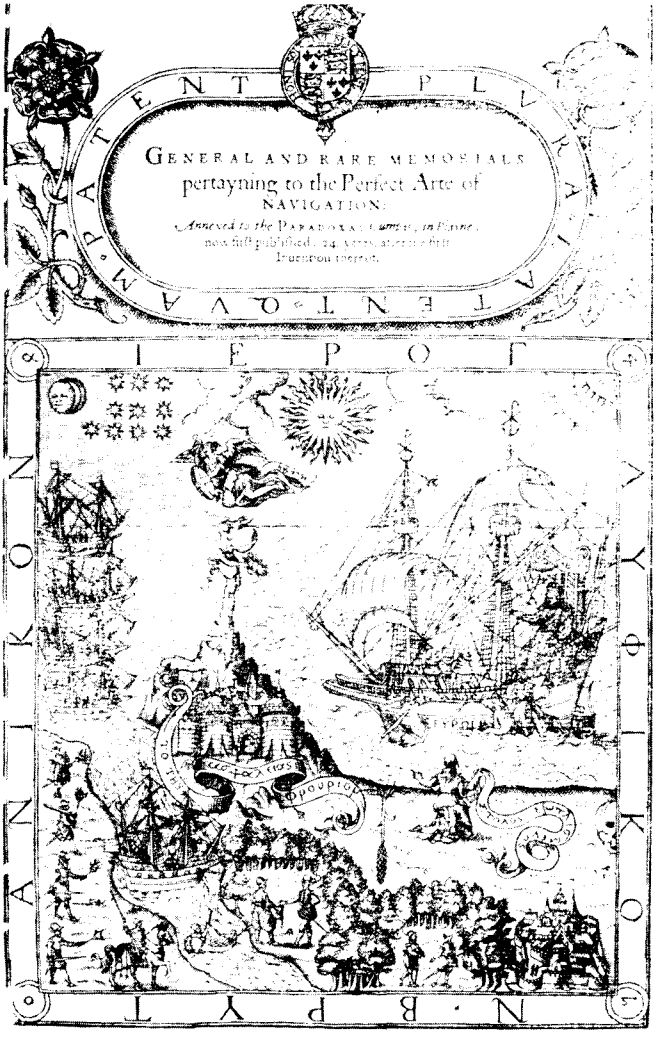


Figure III

The complex hieroglyphic design is thought to be Dee's own.

exiles in Rome and published in London. This is thought to be the first post-medieval map of Britain done by an Englishman.[7] He was also a printer and a maker of beautiful navigational instruments. He made an astrolabe which belonged to Queen Elizabeth. Cole also made globes and astrolabes; one of the latter of his manufacture belonged to Prince Henry. In "A Valediction of weeping" Donne pictures a scene at the globemakers:

> On a round ball
> A workeman that hath copies by, can lay
> An Europe, Afrique, and an Asia,
> And quickly make that, which was nothing, *All*.

But the scene is not merely a picturesque detail in the poem. Donne knew well that a skillful craftsman might transfer from a flat map to a globe, but the reverse, to transfer exactly the spherical to a plane card, the flat map, for the use of the navigator, especially in the higher latitudes, was one of the outstanding theoretical and technical conundrums of the age.[8] Does this curious problem play a role in Donne's famous conceit of his body as a flat map in the "Hymne to God my God" when he seems to question whether his "Physitians," now grown cosmographers, or cartographers,[9] can enable his soul's navigation through those perilous straits? The Straits of Anyan, for instance, named in the poem, the supposed ice-free passage via Nova Zembla to China,[10] existed on maps, but in practice, often fatal, could not be navigated. This inconvenience is in spite of the best efforts of such savants as John Blagrave,[11] who sought to resolve all remaining difficulties (see Fig. IV, p.44).

It is noteworthy that much of the advanced thought of Donne's time finds visual representation in the woodcuts and copper engravings that embellish the printed word. Their visual qualities are often not less extravagant than the verbal. Blagrave's jewel, fine invention though it was, did not quite cut a "direct pathway," as he wrote in his first book, "through the whole Artes of Astronomy, Cosmography, Geography, Topography, Navigation, Longitudes of Regions, Dyalling, Sphericall triangles, Setting figures: and briefly of whatsoever concerneth the Globe or Sphere: with great and incredible speede, plainenesse, and pleasure." His partial listing of the sciences of the time reminds us of the still fundamental interconnectedness of thought. No better symbol of that fact could be found than the fundamental mathematical tool: the compasses.

* * * * *

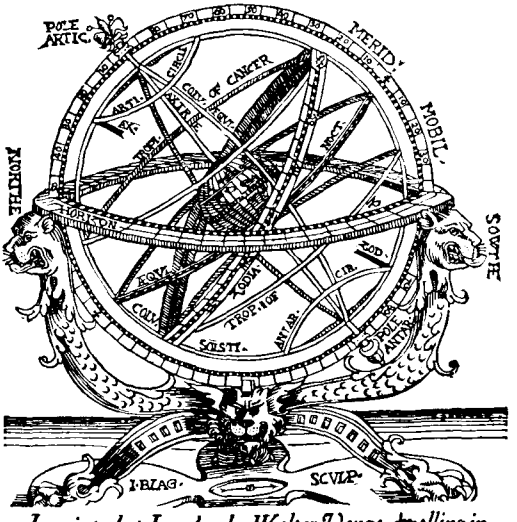
Scholarly explicators of the famous "Valediction" conceit frequently seek to accommodate it to a fully visualizable, coherent image, as do Marvin Morillo, Jay Dean Divine and others pursuing that line of inquiry, *contra* those who, like Robert F. Fleissner, argue against its being meant to be visualized.

THE
MATHEMATICAL IEWEL,

Shewing the making, and moſt excellent vſe of a ſinguler *Inſtrument ſo called: in that it performeth with wonderfull* dexteritie, whatſoeuer is to be done, either by Quadrant, Ship, Circle, Cylinder, Ring, Dyall, Horoſcope, Aſtrolabe, Sphere, Globe, or any ſuch like heretofore deuiſed: yea or by moſt Tables commonly extant: and that generally to all places from Pole to Pole.

The vſe of which Iewel, is ſo abundant and ample, that it lea- deth any man practiſing thereon, the direct pathway (from the firſt ſteppe to the laſt) through the whole Artes of Aſtronomy, Coſmography, Geography, Topography, Nauigation, Longitudes of Regions, Dyalling, Spherical triangles, Setting figures, and briefely of whatſoeuer concerneth the Globe or Sphere: with great and incredible ſpeede, plainenesſe, facilitie, and pleaſure:

The moſt part newly founde out by the Author, Compiled and publiſhed for the furtherance, as well of Gentlemen and others deſirous of ſpeculatiue knowledge, and priuate practiſe: as alſo for the furniſhing of ſuch worthy mindes, Nauigators, and trauylers, that pretend long voyages or new diſcoueries: By *Iohn Blagraue* of *Reading* Gentleman and well willer to the Mathematicks, who hath cut all the prints or pictures of the whole worke with his owne hands. 1585.



Imprinted at London by Walter Venge, dwelling in Fleetelane ouer againſt the Maiden head.

Figure IV

The title page of Blagrave's The Mathematical Iewel *(1585).*

There are likewise those who argue for its radical originality, as against others who demonstrate its derivation or its conventionality by reference to emblematic and symbolical traditions. Following, I presume, M. A. Murray's recognition of the alchemical symbol for gold in the compasses image, other scholars have opened the arcana of alchemy in revealing combinations of close textual readings and intellectual contexts. Among the latter are Eugene Cunnar and A. B. Chambers. John Freccero's landmark study of Donne as deeply immersed in Plato (especially *Timaeus*) and the Christian humanists, reveals the "ultimate source of Donne's compass image" in the Ancients' understanding of the double motion, "at once linear and circular" which makes the motion we call spiral.[12] And, of course, there have been many attempts to identify the particular visual trigger of Donne's conceit.[13] A recent article in that mode by Stanton J. Linden goes to the sea charts which Donne, preparing to sail to France, would have consulted. In a chart of the English Channel he finds a decorative pair of compasses, which, because of the male and female figures in torso there represented, might be thought to have "elemented" the famous conceit:[14]

Figure V

From The Mariners Mirrour *(1588), with decorative engraving by de Bry.*

In the brief, almost perfunctory article Linden offers little elaboration of his finding, but he does rightly observe how surprising it is that such a possibility has been overlooked, since the poem is about travel.

The point deserves a fuller context. Donne's youth coincides with the first, the "golden" age, one might say, of English cartography. Publications of the map and and chart makers were popular, frequently highly successful. Saxton, no doubt the best known, whose *Atlas* enjoyed favour from 1579, was the only cartographer to be granted a coat of arms by a reigning monarch. Its crest, by the way, is a hand holding a "payre of compasses gold." It is probable that Humphrey Cole, goldsmith, executed the *Atlas* frontispiece.[15] What Saxton

Figure VI

Title page of The Mariners Mirrour *showing the tools of the navigator, including single-hand "ring" compasses.*

achieved for the land mass of Great Britain, *The Mariners Mirrour* (1588) attempts to achieve for its southern litorals and surrounding waters. This sea-atlas, pirated from the original Dutch edition of Lucas Waghenaer of 1584,[16] and its subsequent Latin edition, has a famous title page, re-worked for the 1588 English by Jodocus Hondius (Hondt),[17] who practiced his craft for the final decade of the sixteenth century in England, collaborating with Speed, and producing an enlarged Mercator in 1606 (see Fig. VI, page 46). Like Cole, Hondius also engraved globes. A feature of all versions of this frontispiece is the group of five mariners looking into the glass. Linden suggests that they are like the sad friends of the first stanza of the "Valediction."[18]

This golden age of baroque English map design is initiated by Dutch masters like Hondius, J. Rutlinger and de Bry (clearly the most exuberant of them), and continued by native talent, the most prominent being that of Augustine Ryther. Engraving for Saxton, he advertises his nationality in cartouches surmounted by ornate single-hand dividers: "Augustinus Ryther Anglus." He engraved, as did the others named above, plates for the English *Mariners Mirrour*.[19] In their hands the sea-chart became an artwork of baroque sensibility—even Mannerist—and thus in seeming harmony with the colouration of Donne's own poetry. The very titles of the great collections of sea-charts are invitations to the metaphysical poet. The *Theatrum orbis terrarum* of Ortelius, 1570; *Speculum orbis terrarum* of de Jode, 1578; the *Spieghel / Speculum / Mirrour* of Waghenaer, 1584-88; and the great *Atlas* of Mercator, which gave most hope for navigation in higher latitudes by its projection of the globe onto a flat map, intended not to show accurate land mass, but rather the accurate angles required by the navigator to set his course, which work is wonderfully entitled *COSMOGRAPHIICAE MEDITATIONES DE FABRICA MUNDI ET FABRICATI FIGURA* (1595).

In summarizing the relationship between literary and cartographic arts in the period, Victor Morgan points out that although maps and globes were products of the new technologies, as literary images they served to invigorate an existing world view and to reinforce traditional values:

> In the works of literary men, no sharp demarcation was made between this class of signs and those to be found in the parallels of history, the metaphors of language, and the visual emblemata so popular in the period.[20]

So "literary" are the English maps in particular, that one might wonder whether poets such as Donne were inspired by the cartographic ornament, or whether the reverse is true, and the engravers were themselves "poeticised."

It seems to be the case that the elaboration to which I refer takes place in the English context, and does so in a very short span of time. As an illustration

Figure VII

From Waghenaer's Spieghel

of the proposition, compare the Dutch original of the chart to which Linden's article directs us (see Fig. VII, p. 48). Not only is the charming fancy of de Bry's work absent, the Gothic lettering and the relatively simple compasses (straight inner edges and a plain fastening screw or rivet at the apex) are evident features. Linden is right to say that "Even a brief perusal of antique map collections will reveal the popularity of the compass design."[21] True, the simple workaday type is common, but not those created by de Bry or Ryther or Hondius (in his English period). I can find only one other instance of de Bry's conceit of the male and female torsos, and that is in his *America* (Frankfort, 1590), and it is much less exact than his 1588 *Mariners Mirrour*. In fact, the elaborated compasses (many of them simply would not work if they were real artifacts, rather than visual conceits) disappear from cartography by the 1620s.

What does remain, however, as both cartographic image and as artifact (though much plainer as the latter), is the one-handed compasses which, when closed up, create a complete circle at the apex, just below the boss, which may or may not itself be ornamented with a rose design. Such instruments are portrayed, as we have seen, on the title page of *The Mariners Mirrour*, and elsewhere in that volume. As it happens, such compasses are depicted in those charts which are more relevant to Donne's actual Channel crossings to France than the chart to which Linden refers.

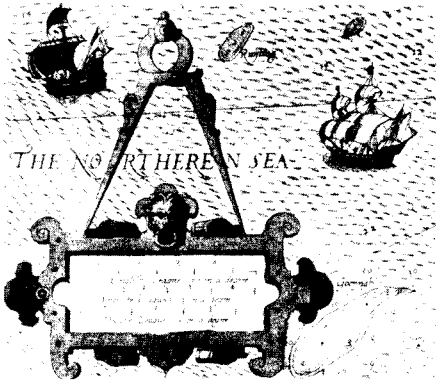


Figure VIII

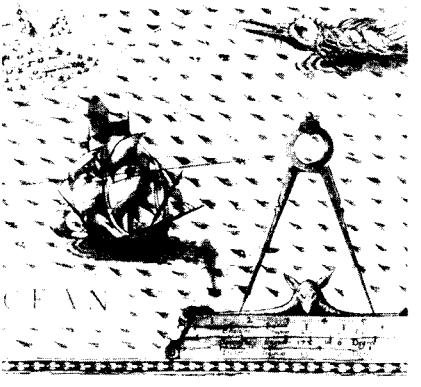


Figure IX

I do not doubt, much less reject, Linden's finding the de Bry design a "source or analogue for Donne's image"—indeed, to use the verb in the poem, it may have "elemented" it; there is reason to think that the "circle"-type compasses play an important role in his image, and are closely related to both the visual and the abstract conclusion to the poem. Moreover, the relationship of the de Bry-type compasses to the "circle"-type is suggested in the poem itself by the

pattern of refinement it pursues: that which physically elements love for "Dull sublunary lovers" (l. 13) vanishes for lovers "Inter-assured of the mind" (l. 19) into, to repeat the phrase, the mathematics of the mind, into compasses which, paradoxically, make a circle even when they are closed. Such a conclusion can fairly be reached, when we must consider the operation of the compasses in context.

As Freccero's study establishes,[22] the compasses conceit is difficult and teasing because it involves the different motions of the divine (circular) and the human (spiral) planes. He goes on to show that the compasses must necessarily trace a course like a "planetry orbit, and not just any spiral," illustrating his point thus:

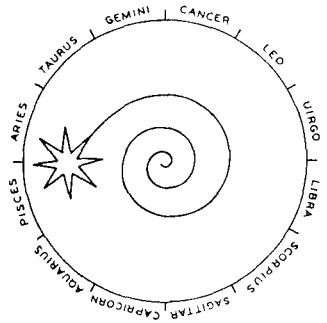
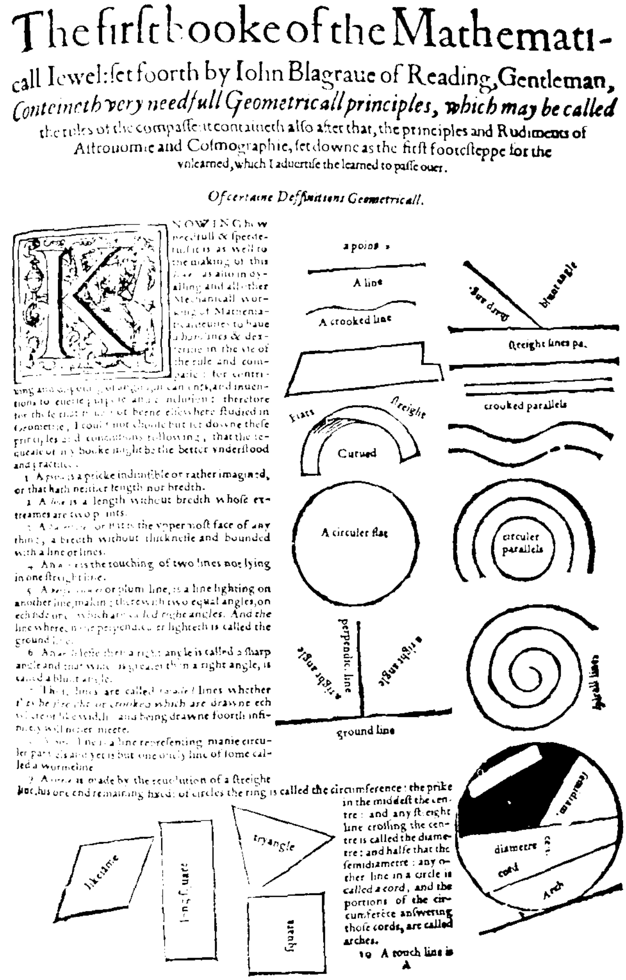


Figure X

The path of Venus projected onto the ecliptic plane (344).

The spiral motion is of great interest also to the mathematicians (often themselves astronomers) of Donne's day as the pattern of what they call "oblique" or "peradoxal" or "paradoxal" navigation. A spiral course, or loxodrome, caused when a foot of the compasses "obliquely" runs, is illustrated in one of Blagrave's elementary geometrical figures (see Fig. XI, p. 51). The great Portuguese scholar Pedro Nuñez demonstrated that rhumb lines (cutting all meridians at the same angle) are, in reality, spirals. His much more elaborate diagram shows rhumb lines from the Equator as spirals terminating at the Pole (see Fig. XII, p.52).

William Barlow, Archdeacon of Salisbury, put his mind to the question of suitable projections for long voyages into high latitudes, and tried to sort out the competing terminology. I quote him here as one example to stand for many on this much discussed topic:



The firſt booke of the Mathematicall Iewel: ſet foorth by Iohn Blagraue of Reading, Gentleman,

Conteineth very needfull Geometricall principles, which may be called the rules of the compaſſe: it containeth alſo after that, the principles and Rudiments of Aſtronomie and Coſmographie, ſet downe as the firſt footeſteppe for the vnlearned, which I aduertiſe the learned to paſſe ouer.

Of certaine Deffinitions Geometricall.

KNOWING how needfull & ſpeciall it is as well to the making of this [illegible] as alſo in dyalling and all other Mechanicall workes of Mathematicians [illegible] [illegible] ſundry and inuentions to [illegible] therefore for thoſe that [illegible] beene elſewhere ſtudied in Geometrie, I could not chooſe but ſet downe theſe principles and [illegible] following, that the ſequele of my booke might be the better vnderſtood and practiſed.

1 A [illegible] is a pricke indiuiſible or rather imagined, or that hath neither length nor bredth.

2 A *line* is a length without bredth whoſe extreames are two points.

3 A [illegible] or [illegible] is the vppermoſt face of any thing, a bredth without thicknes and bounded with a line or lines.

4 An [illegible] is the touching of two lines not lying in one ſtreight line.

5 A [illegible] or plum line, is a line lighting on another line, making therewith two equal angles, on ech ſide one, which are called *right angles*. And the line whereon [illegible] lighteth is called the ground line.

6 An [illegible] then a right angle is called a ſharp angle and that which is greater then a right angle, is called a blunt angle.

7 [illegible] lines are called [illegible] lines whether they be [illegible] or *crooked* which are drawne ech [illegible] and being drawne foorth infinitely will neuer meete.

8 [illegible] line is a line repreſenting manie circuler paralels and yet is but one onely line of ſome called a wormeline

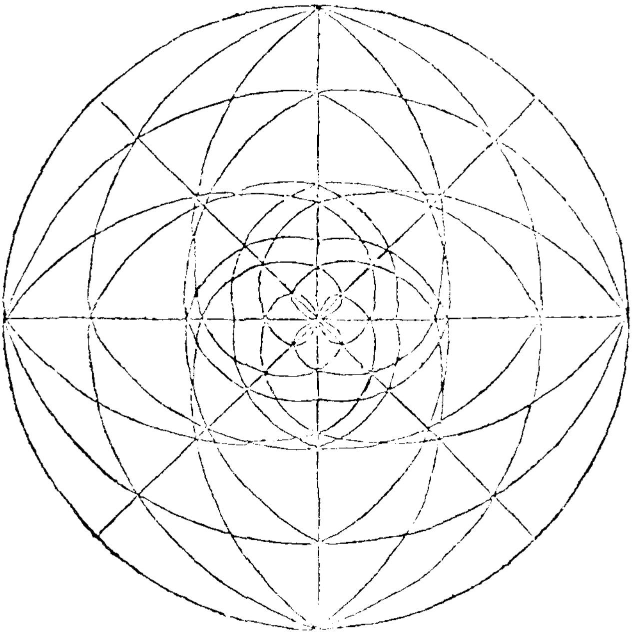
9 A [illegible] is made by the reuolution of a ſtreight line, his one end remaining fixed: of circles the ring is called the circumference: the prike in the middeſt the centre: and any ſtreight line croſſing the centre is called the diametre: and halfe that the ſemidiametre: any other line in a circle is called a cord, and the portions of the circumference anſwering thoſe cords, are called arches.

10 A touch line is A

Figure XI

From the first book of his Mathematical Jewel. *He defines it as "representing manie circuler paralels . . . a wormeline."*

fentos: antes he hũa linha curua: e yrregular. ¶Como parece nesta
figura que vay cercando ho globo da mar e da terra: ate chegar
ao ponto que esta debaxo do polo: onde todolos rumos: meas par
tidas e quartas vam finalmente entrar: per esta razam abate Ptol
lomeu a meu ver o terço do caminho que nauegãdo se anda: peraq̃
o q̃ fica seja o que averia per dereito: e o mays curto: q̃ he per circu-
lo mayor: e porq̃ elle vsa de linhas dereitas: per circulos: portanto
faz linha dereyta: o espaço q̃ se andou: tirado o terço: porq̃ de outra



¶O circulo grande representa a equinocial e o seu centro ho polo do
norte. As linhas dereitas saem de rumos de norte sul: e as outras duas
linhas curuas de hũa parte e da outra sam nordeste sudueste e noroeste
sueste. E as outras entre ellas e a equinocial sam os nordeste ...
... nordeste sueste.

Figure XII

Nuñez's spirals on a polar projection.

> This kind of Proiection serueth most aptly to expresse in a Carde the the Spirall course of a Ship, which some terme *Paradoxall*. But whether of these names (being both as yet strangers) shall best deserve to be freedenized, I leaue to other mens iudgements: Onely I say, (Paradoxall) is beside the purpose, and astonisheth with an empty sound: but (Spirall) apperteineth directly to the matter, and declareth the true essence of the thing signified.[23]

If we recall again Donne's image of the circle and compasses, in the mind's eye, we can see that he has achieved a brilliant resolution. While the spirals created by the inward and outward roaming of the unfixed foot do not, indeed cannot create true circles (for that foot is not to be removed from contact with its plane, the mundane plane) when the outer foot comes home to join the fixed one in a single point, then, paradoxically, *pace* Barlow, a perfect circle in a higher plane is created for the mind's contemplation. It is the circle created at the apex of "circle" compasses when closed, in a vertical plane. This circle is, in effect, a great circle: one is tempted to think of Donne here as solving also, in a playful way, the problem of finding the true meridian. Let us add to the composition an observation made by A. B. Chambers:

> Origen not only argued that the resurrected body would not be flesh, but in one of the most famous heterodox opinions ever recorded, that because the body would be perfect, it would necessarily be spherical in shape.[24]

The elemental bodies of the de Bry compasses disappear into the circle, just as the poem said they would. Donne removes the visual scene from the inward eye, leaving there the pure circle of contemplation.

It is to this theme that the poet returns for the (presumably later) "Obsequies to the Lord Harrington." We left him there at midnight seeking to discerne his "selfe, the hardest object of the sight." Presently his meditation leads him to considering the brevity of the lives of good men, to which category Lord Harrington belongs. Their deeds seem consecutive, like writing on a page. Inexpert readers have to mouth out the words, but expert readers see the meaning very swiftly.

> Just as a perfect reader doth not dwell,
> On every syllable, nor stay to spell,
> Yet without doubt, hee doth distinctly see
> And lay together every A, and B. (ll. 93-96)

Likewise, the same reader sees that the death of a good man transforms the linear to the circular. In fact, the poem actually follows a much less well known compasses image, which involves some of the navigational and cartographic arcana operative in "A Valediction." These include references to circles of latitude, polar projections, engraving (in posibly two senses), and great circles:

> O Soule O circle, why so quickly bee
> Thy ends, thy birth and death, clos'd up in thee?
> Since one foot of thy compasse still was plac'd
> In heav'n, the other might securely'have pac'd
> In the most large extent, through every path,
> Which the whole world, or man, the'abridgment hath.
> Thou knowest, that though the tropique circles have
> (Yea and those small ones which the Poles engrave,)
> All the same roundnesse, evennesse, and all
> The endlesnesse of the'equinoctiall;
> Yet when we come to measure distances,
> How here, how there, the Sunne affected is,
> Where he doth faintly worke, and where prevaile,
> Onely great circles, then, can be our scale:
> So, though thy circle to thy selfe expresse
> All, tending to thy endlesse happinesse,
> And wee, by our good use of that, may trye,
> Both how to live well young, and how to die. (ll. 105-22)

Here, in a manner not dissimilar from that of the "Valediction," the visual image disappears into the circle. But, for the expert reader, even more radically, so has the printed line of symbols itself been subsumed into the abstraction of the circle, expressive of all to the self.

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Notes

[1] Perhaps the schoolmaster's habits and temperament are here revealed, notwithstanding Peacham's dislike of his occupation.

[2]The point here, as several explicators have recognized, is that the compasses, their action confined to the flat (mundane) plane, cannot both make a "circle just," to perform which the circling foot must stay in the circumference of the circle it describes, *and* "come home," which action requires that the feet will be together in a point at the centre, without positing an intervening motion between centre and circumference and back. Such a motion would be a spiral.

It is possible that Donne prepares for the "denial" of the visual resolution in the course of the poem by first denying an auditory resolution of the first "scene": st. 1 "some say" becomes "no noise," and *no telling* in st. 2; physical senses, specifically fear, in st.3, are disallowed in st.4 where sense is removed. Finally, the eyes of st. 5 will see nothing but "airy thiness" in st. 6.

[3]See his "Mathematical Preface" to *The Elements of Geometrie of the most auncient Philosopher Euclide of Megara*, trans. Sir Henry Billingsley (London, 1570).

[4]Where landscape is invoked, it seems intentionally perfunctory and amusing, as in the case of the pastoral setting of "The Extasie," or in the one and a half line erotic landscape of "Elegie: Going to Bed": "such beautious state reveals, / As when from flowry meads th'hills shadowe steales."

[5]Quotations from this poem are from W. Milgate, ed., *John Donne: The Epithalamions Anniverseries and Epicedes* (Oxford: Clarendon Press, 1978), pp. 66-74. Other quotations of Donne's verse are from John T. Shawcross, ed., *The Complete Poetry of John Donne* (New York: Doubleday, 1967).

[6] It is fitting that he and Peacham should have found a happy collaboration. Peacham wrote poems to accompany a number of Hollar's engravings between 1637 and 1644.

[7] Raymond Lister, *Old Maps and Globes* (London: Bell and Hayman, 1979), p. 32.

[8] And so it remained for John Aspley as late as 1624, who in his *Speculum Nauticum* (London, 1624) discusses the problem of projecting a sphere *in plano*.

[9] It is interesting that many of the early cosmographic mathematicians were also physicians. Robert Recorde is perhaps the most significant of these in England. It is also interesting that Geminus, the great engraver, made the first Vesalian compendium in English (in effect, a piracy), which became the map of the body for generations of physicians.

[10] Their position was disputed: more often, as in George Best, *A True Discourse* (1578), they are located between Cathaia and America, East of Japan. Likewise in Antony Linton, *Newes of the Complement of the Art of Navigation* (1609).

[11]Arthur Hopton, *Speculum Topographicum* (1611) writes that if ancient philosophers were alive in his times they would praise Gemma Frisius and Blagrave above all others. F. R. Johnson, *Astronomical Thought in Renaissance England* (New York: Octagon Books, 1968; first edition 1937), p. 171 calls him "the most famous designer of astronomical instruments in Elizabethan England."

[12]John Freccero, "Donne's 'Valediction Forbidding Mourning,'" *English Literary History* (1963): 335-75.

[13] I am indebted to John R. Roberts, *John Donne: An Annotated Bibliography of Modern Criticism 1912-1967* (Columbia: University of Missouri Press, 1973), and *John Donne: An Annotated Bibliography of Modern Criticism 1968-1978* (Columbia: University of Missouri Press, 1982), in which volumes may be found descriptive summaries of the articles by Morillo, Divine, Fleissner, Murray, Cunnar and Chambers.

[14]"Compasses and Cartography: Donne's 'A Valediction: forbidding Mourning,'" *John Donne Journal* 3 (1984): 23-32.

[15] Lister, p. 36.

[16] *Spieghel der Zeevaerdt* was printed by Plantin in Leyden, whose device of a pair of compasses has been proposed as the "original" of Donne's compasses.

[17] R. A. Skelton, *Decorative Printed Maps of the 15th to 18th Centuries* (London: Staples Press, 1952), p. 49.

[18] Linden, p. 24.

[19] Skelton, p. 47, writes of de Bry's originality, gaiety and freedom. A native of Liege, he lived in London for a time, where he was a friend of Hakluyt. He has been compared favourably with Hondius by David W. Waters, *The Art of Navigation in Elizabethan and Early Stuart Times* (Greenwich: National Maritime Museum, 1978), p. 97.

[20] "The Literary image of globes and maps in early modern England," in Sarah Tyacke, ed., *English Map Making 1500-1650* (London: The British Library, 1983), p. 55.

[21] Linden, p. 24.

[22] Freccero, p. 369.

[23] *The Navigators Svpply* (London, 1597), sig. K3v, K4.

[24] "Glorified Bodies and the 'Valediction: forbidding Mourning,'" *John Donne Journal* 1 (1982): 10.