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The Way to the Stars

Michael Webb

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The Way to the Stars

Michael Webb

Webb M

note to the reader:
when a word appearing in the text is followed by a
numeral, refer to the Random House College Dictio-
nary (1975 revised edition) for the precise meaning
intended.

Foreword:
The article concerns the mathematics of simple one
point perspective projection, a.k.a. "Renaissance"
perspective; its focus the author's intent to quan-
tify that most fundamental of properties regarding
our perception of material objects in space: that
the apparent* size of an object is in inverse pro-
portion to its distance from the eye; the greater
the distance, the smaller the object seems....but
how much smaller? and is there an underlying math-
ematical progression...a series...governing this
phenomenon!? Whoops! by hitting ENTER instead of
DELETE I've created a seism in the text, by
strewn fragments of words, and con-
sequent

ly the ir mean 16/4 82= .0332
ing, all overt 16/481= .0332
he screen... accident ally forming new 16/480= .0333
ones irrelevant to the text, like 'overt' and 16/479= .0333
'ally'. I 16 t's fun to 16/478= .0334
play trains with the locomotive 16/477= .0335
cursor shunting strings of freight car words 16/476= .0336
around from line to line 16/475= .0336
To anyone but a child of the steam age 16/474= .0337
all this would be nothing to get steam-agg over. 16/473= .0338
But in this dissolution is the potential for recon- 16/472= .0339
stitution: of letter and consonant into diagrams, 16/471= .0339
rebus like substitutes for words, composed of the 16/470= .0340
same electronic material as the words themselves. 16/469= .0341
16/468= .0342
notes to the reader: 16/467= .0342
*the actual size of the object as projected on the 16/466= .0343
picture plane. 16/465= .0344
**Citibank expletive of choice as projected on the 16/464= .0344
ATM screens. 16/463= .0345
16/462= .0346
16/461= .0347
Article: 16/460= .0347
The author of Don Quixote tells us of his being re- 16/459= .0348
commended to include within the text: "a few meagre 16/458= .0349
scraps of Latin [so that he] may perhaps be taken 16/457= .0350
for a scholar, which is both honorable and profit- 16/456= .0350
able these days; and, in the margin(or footnotes), 16/455= .0351
to quote Horace, or whoever said [them]." 16/454= .0352
16/453= .0353
MONTES PARTURIUNT NASCETUR RIDICULUS MUS* 16/452= .0354
[little]
the mountains heave: born is a ridiculous mouse 16/451= .0354
16/450= .0355
When constructing via CAD the vanishing point and 16/449= .0356
horizon** of even the most rudimentary perspective 16/448= .0357
projection.....my mouse creates and then inhabits 16/447= .0357
a domain the size of the universe... precisely the 16/446= .0358
size of the universe. Symptoms of such an apparent 16/445= .0359
megalomania include the desire, more a longing, to 16/444= .0360
explore and quantify this awesome+ domain; and ask 16/443= .0361
of it questions: are you near or are you far? are 16/442= .0362
you, perhaps, where the end of the rainbow is? and 16/441= .0362
by going there, could you ever actually arrive? 16/440= .0363

The WW2 film "The Way to the Stars"++(1942) might, 16/438= .0365
due to its title, seem to suggest the flight path, 16/437= .0366
as it were, to enlightenment, but in fact the plot 16/436= .0367
itself merely lists the glamorous exploits, both 16/435= .0367
on and off duty, of young RAF fighter pilots; the 16/434= .0368
title, presumably, being intended to connect with 16/433= .0369
the motto of the RAF: PER ARDUA AD ASTRA*** which 16/432= .0370
doesn't get you very far at all. 16/431= .0371
16/430= .0372
So.....discarding the viewless wings of poesy**** 16/429= .0373
proffered by England's wartime movie industry as a 16/428= .0373
means of transportation, there remains but an exam- 16/427= .0374
ination, patient and laborious, of the mathematics 16/426= .0375
of perspective projection and the vasty+++universe 16/425= .0376
it seems to enfold; and it's that most rudimentary 16/424= .0377
system of projection, that Cyclopean system taught 16/423= .0378
to students of architecture numberless, which has 16/422= .0379
the greatest ability to amuse, not just because the 16/421= .0380
picture generated yields an acceptable simulacrum 16/420= .0380
of the object (the subject)*****but because it's a 16/419= .0381
discrete mathematical construct possessing certain 16/418= .0382
charms that just happens to have been corralled in 16/417= .0383
to picture making duties. Actually, the two dimen- 16/416= .0384
sional reading the picture offers of the three dim- 16/415= .0385
ensional object is accurate only at the point of 16/414= .0386
the center of vision; to travel outward from that 16/413= .0387
point, over the surface of the field of vision, is 16/412= .0388
to encounter ever greater distortion, until at the 16/411= .0389
periphery the distortions become infinite. 16/410= .0390
16/409= .0391
So as to familiarize, or rather refamiliarize our 16/408= .0392
selves with perspective's basic principles let us 16/407= .0393
blow the dust off "Rudimentary Projection Methods" 16/406= .0394
by W.B."Dice" Belham, (1893-1937) ISBN 77 81 02931 16/405= .0395
and wade through chapter one, which begins with a 16/404= .0396
series of diagrams, shown here in somewhat more con- 16/403= .0397
temporary raiment, that seek to explain perspective 16/402= .0398
with the aid of a case study, namely, the Royal Re- 16/401= .0399
gatta course at Henley-on-Thames. Dots in the dia- 16/400= .0400
grams represent course markers. B defines the loca- 16/399= .0401
tion of the Beholder (in Belham's quaint jargon) 16/398= .0402
a.k.a. observer. The term "Beholder" may have been 16/397= .0403
chosen by him so as to reserve the O, the unattain- 16/396= .0404
able O, for the vanishing point (see the column of 16/395= .0405
figures at right)...or, given Belham's known fetish 16/394= .0406
for personal hygiene, it is just possible that the 16/393= .0407
adjacency of the two letters, in marking on the pic- 16/392= .0408
ture (the perspectival image) the coincidence of the 16/391= .0409
location of the beholder and the vanishing point, 16/390= .0410
.....would have appealed to him. 16/389= .0411
16/388= .0412
16/387= .0413
16/386= .0414
16/385= .0415
16/384= .0416
16/383= .0417
16/382= .0418
16/381= .0420
16/380= .0421
16/379= .0422
16/378= .0423
16/377= .0424
16/376= .0425
16/375= .0426
16/374= .0427
16/373= .0428
16/372= .0430
16/371= .0431
16/370= .0432

1 unit 512' from START .1.
2 units 1024' from START .1.
3 units 1536' from START .1.
4 units 2048' from START .1.
5 units 2560' from START .1.
6 units 3072' from START .1.
7 units 3584' from START .1.
8 units 4096' from START .1.
9 units 4608' from START .1.
10 units 5120' from START .1.
11 units 5632' from START .1.
12 units 6144' from START .1.
13 units 6656' from START .1.
14 units 7168' from START .1.
15 units 7680' from START .1.
16 units 8192' from START .1, FINISH

course markers. The plane may be located anywhere within the cone of vision (a fabrication3 composed of a cone whose axis is the center of vision , and whose vertex is in the eye of the Beholder....the idea being that by limiting the field of vision to that which is enclosed within the cone, distortion can be avoided: see: lines 16/450- 16/455) as long as its orientation is perpendicular to the center of vision. A seventeen sided dice rolled by Belham decided the Start as the location of the plane.

16/365=.0438
16/364=.0439
16/363=.0440
16/362=.0442
16/361=.0443
16/360=.0444
16/359=.0445
16/358=.0446
16/357=.0447
16/356=.0449
16/355=.0450
16/354=.0451
16/353=.0453
16/352=.0454
16/351=.0456
16/350=.0457
16/349=.0458
16/348=.0459
16/347=.0461
16/346=.0462
16/345=.0463
16/344=.0465
16/343=.0466
16/342=.0467
16/341=.0469
16/340=.0470
16/339=.0472
16/338=.0473
16/337=.0474
16/336=.0475
16/335=.0477
16/334=.0479
16/333=.0480
16/332=.0481
16/331=.0483
16/330=.0484
16/329=.0486
16/328=.0487
16/327=.0489
16/326=.0490
16/325=.0492
16/324=.0493
16/323=.0495
16/322=.0496
16/321=.0498
16/320=.0500
16/319=.0501
16/318=.0503
16/317=.0504
16/316=.0506
16/315=.0507
16/314=.0509
16/313=.0511
16/312=.0512
16/311=.0514
16/310=.0516
16/309=.0517
16/308=.0519
16/307=.0521
16/306=.0522
16/305=.0524
16/304=.0526
16/303=.0528
16/302=.0529
16/301=.0531
16/300=.0533

16/298=.0536
16/297=.0538
16/296=.0540
16/295=.0542
16/294=.0544
16/293=.0546
16/292=.0547
16/291=.0549
16/290=.0551
16/289=.0553
16/288=.0555
16/287=.0557
16/286=.0559
16/285=.0561
16/284=.0563
16/283=.0565
16/282=.0567
16/281=.0569
16/280=.0571
16/279=.0573
16/278=.0575
16/277=.0577
16/276=.0579
16/275=.0581
16/274=.0584
16/273=.0586
16/272=.0588
16/271=.0594
16/270=.0592
16/269=.0594
16/268=.0597
16/267=.0599
16/266=.0601
16/265=.0603
16/264=.0606
16/263=.0608
16/262=.0610
16/261=.0613
16/260=.0615
16/259=.0617
16/258=.0620
16/257=.0622
16/256=.0625
16/255=.0627
16/254=.0629
16/253=.0632
16/252=.0634
16/251=.0637
16/250=.0640
16/249=.0642
16/248=.0645
16/247=.0647
16/246=.0650
16/245=.0652
16/244=.0655
16/243=.0658
16/242=.0661
16/241=.0663
16/240=.0666
16/239=.0669
16/238=.0672
16/237=.0675
16/236=.0677
16/235=.0680
16/234=.0683
16/233=.0686
16/232=.0689
16/231=.0692
16/230=.0695

	n	16/	17=	1.9411
distance from c of v	_____	16/	16=	1.0000
distance from c of v	_____	16/	15=	1.0666
distance from c of v	_____	16/	14=	1.1428
distance from c of v	_____	16/	13=	1.2307
distance from c of v	_____	16/	12=	1.3333
distance from c of v	_____	16/	11=	1.4545
distance from c of v	_____	16/	10=	1.6000
distance from c of v	_____	16/	9=	1.7777
distance from c of v	_____	16/	8=	2.0000
distance from c of v	_____	16/	7=	2.2857
distance from c of v	_____	16/	6=	2.6600
distance from c of v	_____	16/	5=	3.2000
distance from c of v	_____	16/	4=	4.0000
distance from c of v	_____	16/	3=	5.3333
distance from c of v	_____	16/	2=	8.0000
distance from c of v	_____	16/	1=	16.0000
distance from c of v	_____	16/	N=	forever

The above readings (lines 16/ 16 to 16/ N incl.) represent the distances measured along the Picture Plane from the Center of Vision to points marking the projection rearward of an object's rear onto the Picture Plane. The readings, in toto, generate a curve that will approximate but never equal: 0 (see vertical extension of column at right); thus, in a sense, 0 cannot exist. The curve is exponential and is similar to that developed as a function of the formulae first published in 1896 by Hendrik Lorentz, and known as the Lorentz Transformations. These describe, e.g. the increase in the apparent mass of an object resulting from a concomitant increase in its velocity. One of his formulae is as follows: Moving Mass is equal to the Mass at Rest divided by the square root of one minus the square of the speed of the object divided by the speed of light. Did you get all that?

notes to the reader:
*if Horace wouldn't object, the meagre scap should
now read: MUS PARTURIT NASCETUR RIDICULUS MONTEM

```
**the horizon is a point and not a line.
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***through high things the stars [can be attained].

****the phrase is from: "Ode to a Nightingale"
by John Keats.
'Away, away, for I will fly to thee',
Not charioted by Bacchus and his 'pards,
But on the viewless wings of poesy,
Though the dull brain doth perplex and retard,
Already there! tender is the night," etc.

*****the object is the subject of study.

notes to a translator:
+pre c. 1980 meaning. since then the word has come
to mean: looking or tasting good.

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++how about: "Sehnsucht nach den Sternen" (German)
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+++not a misprint.  the quote is from the prologue
to 'Henry V', by Shakespeare(?): "can this cock
pit hold the vasty fields of France?"  can the
format of Oz hold the depiction of infinity?
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end notes.
end article.