William Turner: Weltanschauung of an Elizabethan

Clarke
WILLIAM TURNER:
WELTANSCHAUUNG OF
AN ELIZABETHAN.

by
Dennis J. Clarke

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Dennis J. Clarke
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"Amantium irae amoris integratio est."
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CHAPTER I
LIFE AND PUBLICATIONS

This thesis is an investigation of the Weltanschauung of William Turner, a sixteenth-century English scientist and religious reformer. The investigation will be based on Turner's biography and works, especially his last herbal published in 1568. This is not a study of William Turner as a notable figure in the history of science. Nor is it an investigation into the man as a celebrated figure in the history of the Reformation in England. It is, however, the study of a well-rounded individual and how he blended the many influences in his life and in his occupations into his love of sixteenth-century England. Paul H. Kocher reports in the commonly accepted relationship between science and religion in Elizabethan England into which Turner implicitly fits. He wrote:

God sows in man's soul certain innate principles which allow him to earn accurate and valid knowledge of the physical world. The Fall did not radically impair this power. Then men do well when they use the gift to discover the giver, and to act his will. They should see behind nature's order the face of God. Loving their neighbors as themselves, they should engage in science not out of pride or thirst of intellect but in the spirit of charity, turning their discoveries to the good of their fellow man. Science should never become an end in itself, never cut free from this religious frame of reference. For if it did, the consequence of dealing exclu-
sively with second causes would be neglect of the whole realm of spirit under God. Then would follow materialism; then atheism, the final horror.¹

William Turner was a native of Morpeth, Northumberland, and was born during Henry VIII's reign, possibly between the years 1509 and 1515.² His father is supposed to have been a tanner.³ Nothing is known of his early education, but he did attend Pembroke College, Cambridge under the patronage of Thomas, Lord Wentworth.⁴ Pembroke also produced many other notable British botanists such as Nehemiah Grew, one of the greatest English botanists of the seventeenth century.⁵

At Cambridge Turner was closely associated with the Reformation. He was an intimate of Nicholas Ridley (afterwards bishop of London and martyr under Queen Mary⁶), and through his friendship with Ridley, learned Greek and the mysteries of tennis and archery.⁷ Turner was elected Junior Fellow of his college in 1531, Joint Treasurer in 1532, J

⁴ William Turner, Herbal (Cologne, 1568), part II, p. i.
⁵ Arber, p. 119.
⁶ Sir Lesley Stephen et al., Dictionary of National Biography (London, 1938), XVI, 1172-75.
had a title for orders from the college in 1537, and was Senior Treasurer in 1538. During his studies at Pembroke, Turner attended the preachings of Hugh Latimer (later bishop of Worcester and Marian martyr). Turner was to fight for the reformed faith throughout his life, both with pen and by word of mouth. It is not known how long Turner held his fellowship, possibly until his marriage with Jane, the daughter of George Ander, alderman of Cambridge. Turner left Cambridge in 1540, travelling about, and preaching in various places. For preaching without license, he suffered imprisonment for a time. After his release he left England and travelled in Italy, Germany, and Holland. He wrote in his herbal that he visited Apulea, Lake Como, and Ferrara; and at Bologna he studied botany under Luca Ghini (Italian botanist and physician, 1490-1556). Either in Bologna or in Ferrara

8 Sir Lesley Stephen et al., XIX, 1290.
9 Ibid., XI, 612-20.
10 Arber, p. 120.
11 Sir Lesley Stephen et al., XIX, 1292.
12 Ibid., XIX, 1290.
13 Arber, p. 120.
14 Sir Lesley Stephen et al., XIX, 1290.
he took the degree of doctor of medicine. From Italy he went to Zürich, where he formed an intimate and lifelong friendship with Conrad Gesner, a famous sixteenth-century Swiss naturalist. Gesner had a high opinion of Turner, and wrote of him, "Fifteen years ago, or about then, an Englishman returning from Italy greeted me. He was excellent both in medical things and very many other disciplines of doctrine and other things that are difficult to remember." Turner also corresponded with the German botanist Leonhart Fuchs.

Leaving Zürich, Turner visited Basel in 1543 and Cologne in 1544. He spent considerable time studying the flora of the Rhine country. Eventually he went to East Friesland and became physician to the "Erle of Emden." He was in correspondence with "Maister Riche and maister

16 Rohde, p. 76
17 Sir Lesley Stephen et al., XIX, 1290.
18 De herbis lunariis, 1555: "Ante annos 15, aut circiter cum Anglicus ex Italia rediens me salutaret is fuerit vir excellentis tum in re medica tum alius plerisque disciplines doctrinae aut aliis quisquam vix satis memini." Taken from Rohde, p. 77.
19 Arber, p. 121.
20 Sir Lesley Stephen et al., XIX, 1290.

Turner returned to England upon Edward VI's accession to the throne in 1547. He became the chaplain and personal physician to Edward Seymour, Duke of Somerset, uncle of Edward VI, and Lord Protector. In September 1548, Turner wrote to the duke's secretary, William Cecil (later Lord Burghley) stating that he was destitute and desired some clerical preferment not far from court. He was promised a prebend at York by Cecil in 1549, and in February of the following year, the prebend was his. The privy council suggested in July of 1550 that Turner be elected provost of Oriel College, Oxford, but another cleric had already been elected to that office. Turner wrote to Cecil again in September 1550 asking for the presidency of Magdalen College, Oxford, but he failed to receive it. Despondent, Turner then desired to go abroad and finish the herbal which he had begun during

22 Ibid., p. 33.
23 Rohde, p. 77.
24 Sir Lesley Stephen et al., XIX, 1291.
25 Ibid.
26 Ibid.
27 Ibid.
his previous trip in Germany. The trip never materialized, for in November 1550 he was appointed to the deanery of Wells, recently vacated by the deprivation of Dean Goodman.\textsuperscript{28} By some political and some ecclesiastical maneuvering, Goodman never vacated the dean's house. On 10 April 1551, Turner received dispensation from residence at the deanery by issue of the crown, but he was still allowed to keep the stipend of the office.\textsuperscript{29} On 21 December 1552 he was ordained a reform priest by Bishop Ridley.\textsuperscript{30} Upon Mary's accession to the throne in 1553, Turner was deprived of his position at the Deanery of Wells and became a Marian exile.\textsuperscript{31} He fled to Germany and visited such cities as Bonn, Worms, Frankfurt, Nürnberg, Speyer, Freiburg, Cologne, and Weissenberg.\textsuperscript{32} Turner's theological works were proclaimed heretical by a council in 1555, and Englishmen had to give notice of any copy they had in order that the books might be destroyed.\textsuperscript{34}


\textsuperscript{29} Ibid. There was no explanation found how Turner became a prebendary without first being ordained.

\textsuperscript{30} Ibid.

\textsuperscript{31} Ibid.

\textsuperscript{32} Ibid.

\textsuperscript{33} Ibid.

\textsuperscript{34} Ibid.
Turner returned to England again in 1558 when Elizabeth was crowned queen. In 1559 Turner brought a legal suit against Dean Goodman for Goodman's restitution to the deanery of Wells, to which suit a commission voted favorably on 18 June 1560.  

Turner must have been a problem to his superiors, for in 1559 Gilbert Berkeley, bishop of Bath and Wells, wrote in a letter to William Cecil:

I am much emcombred with mr. Doctor Turner Deane of Welles for his undicreete behavior in the pulpit where he medleth wth all matters and vnsemelie speaketh of all estates, more than ys standing with discressyon. I have advertised him by wrytynges and have admonished secretly by his owne frendes: notwithstanding he persisteth still in his follie: he conteneth all Bishopps and calleth thē white coats, typett gentlemē, with other wordes of reproche (mu)ch more unsemelie and asketh "who gave them authoritie more ouer me than I ouer them?"  

A story is told that Turner trained his dog at a given sign to snatch the bishop's square cap off his head when the prelate was dining with him.  

Whatever the reason, Turner was suspended for nonconformity in 1564.  

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35 Sir Lesley Stephen et al., XIX, 1291.  
36 Arber, p. 120.  
37 Rohde, p. 79.  
39 Sir Leslie Stephen et al., XIX, 1291.
turned to London and resided at Crutched Friars.\textsuperscript{40} In failing health, he completed his herbal, and there is extant a pathetic letter (the greater part written by an amanuensis) to his patron Lord Burghley, which is signed "Your old and seikly client wllm turner doctor of physic."\textsuperscript{41}

Turner died in 1568, and was buried in Saint Olave’s, Hart Street.\textsuperscript{42} His epitaph reads:

The most famous, most learned, and most valiant man, William Turner, most expert doctor and theologian. Dean of Wells for thirty years, experienced both in knowledge of the church and public matters, most valiant against both the evil enemies and the Roman Antichrist. Most brave soldier of Jesus Christ, he fought most keenly and at last, his body aged and his work completed, he is buried in the hope of the blessed resurrection and his immortal soul is given back to the dearest and most holy God. By the strength of Christ, he conquered the world and the flesh. Triumphant over men in eternity. The great Turner was, at some time, great in the art of Apollo [medicine] and in the true religion. Death, however, coming on him suddenly in old age he departed. He is now a citizen of the heavenly

\textsuperscript{40} Ibid., XIX, 1292.

\textsuperscript{41} Rohde, p. 79.

\textsuperscript{42} Ibid.

\textsuperscript{43} There is an inconsistency in dates here for which no explanation could be found.
kingdom above. He died on the seventh day of July in the year of the Lord 1568.44

In his lengthy will, written on 26 February 1567, he bequeathed to his wife "his best pece of syluer vessell and halfe dozen of syluer spones," to his son Peter "all my writen bookes and if he be a preacher all my diuinitie bookes, & yf he practise Phisicke all my physicke bookes," and to his nephew "my lytell furred gowne."45 Turner's widow later married Richard Cox, who became bishop of Ely.46 She founded a scholarship at Cambridge in memory of Turner.47

While still at Cambridge, Turner had two works published. The first, in 1537, was a translation from Latin into English of A c5parison betwene the olde learnynge &

44 Rohde, p. 80: "CLARISSIMO.DOCTISSIMO.FORTISSIMOQUE. VIRO.GULIELMO.TURNERO.MEDICO.AC.THEOLOGICO.PERTISSIMO. DECANO.WELLENSI.PER.ANNOS.TRIGINTA.IN.VTRASQUE.SCIENTIA. EXERCITISSIMUS.ECCLESIAE.ET.REI.PUBLICAE.PROFVT.ER. CONTRA.VTIVSQUE.PERNITIOSISSIMOS.HOSTES.MAXIME.VERO. ROMANU.ANTICHRISTVM.FORTISSIMUS.JESU.CHRISTI.MILES. ACERREME.DIMICAVIT.AC.TANDEM.CORPUS.SENIO.ET LABORIBUS. CONFECTION.ET.RESPVRRECTIONIS.HIC.DEPONEVIT. ANIMAM.IMMORTALEM.CHARISSIMO.EIVSQUE.SANTISSIMO.DEO. REDDIDIT.ET.DEVICITIS.CHRISTI.VIRTUTE.MVNDI.CARNISQUE. VIRIBUSTRIUMPHANT.ET.AETERNUM.MAGNVS.APOLLINAE.QVONDAM. TVRNERVS.ET.IN.ARTE.MAGNUS.ET.IN.VERA.RELIGIONE.FVIT/MORS. TAMEN.ObREPENS.MAIOREM.REDDIDIT.ILLVM.DIVIS.ENIM.CAELI. REGINA.SUPERNA.TENET OBIIT. 7DIE. IVLII. AN. DOM. 1568."

45 Rohde, p. 80.
46 Ibid.
47 Ibid.
the newe by Rhegius Urbanus. It was reprinted in 1538 in Southwark by James Nicholson. His first botanical work, *Libellus de re herbaria novus*, was also published in 1538. It was the first English herbal in which localities of native British plants were given.48

Eleven years later he wrote another herbal, *The names of herbes in Greke, Latin, Englishe, Ducche, and French wyth the commone names that Herbaries and Apothecaries use*. In his preface Turner wrote that he had written in Latin, but refrained from publishing it because when he:

Axed the advise of Phisicianes in thys matter, their advise was that I shoulde cease from settynge out this boke in latin tyll I had sene those places in Englannde, wherein is moste plentie of herbes, that I might in my herbal declare to the greate honoure of our countre what numbre of sovereine and strang herbes were in Englande that were not in other nations, whose counsell I have folowed deferryng to set out my herbal in latin, tyl I have sene the west countrey, which i never sawe in al my lyfe, which countrey of all places of England, as I heare say is most richely replenished wyth all kindes of straunge and wonderfull workes and giftes of nature, as are stones, herbes, fishes and metalles.49

He went on to explain that while waiting to finish his herbal, he had been advised to publish the book,

48 Ibid.

When as they moued me to the settyng furth of my latin herbal in Englishe as Fuchsius did in latine wyth the discriptions, figures and properties of as many herbes, as I had sene and knewe, to whom I could make no other answere but that I had no such leasure in this vocation and place that I am nowe in, as is necessary for a man that should take in hande suche an interprise. But thys excuse coulde not be admitted for both certaine scholars, poticaries, and also surgeons, required of me if that I woulde not set furth my latin herbal, before I have sene the west partes, and have no leasure in thys place and vocation to write so greate a worke, at least to set furth my judgement of the names of so many herbes as I knew, whose request I have accomplished, and have made a litel boke, which is no more but a table or regestre of such bokes as I intende by the grace of God to set furth hereafter; if that I may obteine by your graces healp such libertie and leasure with convenient place, as shall be necessary for suche a purpose.50

Also in the preface he wrote, "and because men should not thynke that I wrote of that I never sawe, and the Poticaries shoulde be excuesless when as the ryghte herbes are required of them, I have shewed in what places in Engelande, Germany and Italy the herbes growe and may be had for laboure and money."51

In 1544, Turner wrote the Historia de naturis scholiis et notis vallata. But, probably because of the repeated condemnation of his works and their likely destruction, this book is not otherwise known except for an obscure reference.52

50 Ibid.
51 Ibid.
52 Rohde, p. 208.
During his first trip to Europe, Turner published two booklets upholding the Protestant cause. The first, in 1543, was *The huntyng & fyndyng out of the Romishe fox*, followed by *The rescyunge of the romishe fox* in 1545. These works aroused so much Protestant sympathy in England that, in 1546, the last year of Henry VIII's reign, they were prohibited.  

Along with the herbal published in 1548, Turner also wrote two more religious works. The first, *A new dialogue vvherin is conteyned the examinatiō of the messe, and of that kynde of priesthode, which is ordained to say messe: and to offer vp for remyssyon of synne, the body and bloude of Christe agayne*, was so popular in the support of Protestantism that it was published twice, once in 1548 at London, and once again in 1550 at London. Turner's second work published in 1548 was one concerning education and religion: *The olde learnyng & the new, compared together wherby it may easely be knoe which of them is better and more agreyng wyth the word of God.*

In 1551, the first installment of his *Herbal* was published in London by Steven Myerdman, a Protestant refugee

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53 Ibid, p. 77.


55 Ibid. (London, 1550).
from Antwerp. His Herbal is the only original work on botany written by an Englishman in the sixteenth century. The second part was published along with the first part in 1562 at Cologne by Arnold Birckman during Elizabeth's reign. The whole work, containing the third part, was published in Cologne in 1568 by Birckman.

Turner wrote two other works, one in 1555, The nev booke of spirituall physik for dyuers diseases of the nobilite and gentlemen of Englande, and, in 1568, A newe boke of the natures and properties of all wines that are commonye vsed in Englande.

Finally, there was a catechism published in 1572, four years after Turner's death, which Turner translated from Latin into English. It was The catecisme, or maner to teach children & others the Christian fyth: used in all landes & dominions that are vnder the mighty Fredericke, the Palsgraue of ye Rhene, or more commonly called the Heidelberg Catechism.

56 Rohde, p. 81.
57 William Turner, Herbal (Cologne, 1568).
58 William Turner, A nev booke of spirituall physik (Basel, 1555).
59 William Turner, A newe boke on the natures and properties of all wines (London, 1568).
Turner was a remarkable man. He was well-educated, having studied at Pembroke hall and held a degree in medicine. He was well-travelled, having visited Italy, the Netherlands, and much of Germany. Many of his literary works were world-renowned. He was respected by many of his contemporaries both as a gentlemen and a scholar. He obtained, either through personal communication or through a massive quantity of reading, a knowledge of theology, medicine, botany, and an acquaintance with metallurgy, ichthyology, and enology. The balanced combination of all of these achievements in Turner shows him to be a well-rounded figure of his age.
CHAPTER II
KILL OR CURE
Style and Folklore

Turner's final and comprehensive Herbal was published in 1568. Certain aspects of Turner's Herbal are of particular interest to this chapter of the thesis. The aspects to be examined are Turner's style, description, botanical classification of herbs, folk customs, and herbal remedies. The first half of the chapter will emphasize Turner's style; the second half will investigate the therapeutic qualities assigned to herbs by Turner. Through this study much about Turner's personality and scientific method can be learned and from this conclusions about his Weltanschauung will be drawn in the last chapter.

Turner was very exacting in both his religious and scientific studies. In writing a treatise, he became wholeheartedly involved. His desire to arrive at the truth of a matter was unyielding. Rohde writes: Like most writers of any value, he impressed his personality upon his books, and these show him to have been a man of indomitable character, caustic wit, and independent thought.\textsuperscript{61}

\textsuperscript{61} Rohde, p. 81.
Turner was not apprehensive about attacking anyone whom he felt to have committed gross mistakes. The corrup­tion of the Catholic Church and its servants irked him, and he was afraid to condemn neither the doctrines nor the bishops who propounded them. His attacks on Catholics in the books *Spirituall physik* and *Romishe fox* were limitless.

In the scientific field, Turner's attacks on scientists who had given bad advice were scathing. In many of his scientific writings one senses a resentment towards botanists who endangered the lives of many people through their fallacious observations and the prescriptions in their herbals. In the first part of his herbal, Turner attacked the apothecaries of Antwerp mercilessly, charging them with substituting one herb for another in prescriptions. He knew that if one herb were replaced by another, or even left out completely, the potency of the remedy would be effaced. In another place Turner warned some interns not to use a certain poor, scientific text:

> Let yonge students of Physike looke that they lese not theyr tyme in readinge of suche ennarationes as thys man writeth which bringe more darkness oft tymes then light.62

Turner made meticulous descriptions of vegetation in his herbal by including detailed characteristics of plants such as their size, shape, height, color, flower arrange-

ment, leaf shape, and seed pods together with locations where the plants were to be found and medicinal properties. Turner's vivid description of dodder demonstrates his delicate employment of colors and allowing of the reader's mind to draw parallels between characteristics of familiar plants and the herb being described.

Doder groweth out of herbs and smal bushes as miscelto groweth out of trees. Doder is lyke a great red harpe strynge and it wyndeth about herbs foldyng much about them and hath floures and knoppes one from an other a good space. His choice of descriptive adjectives and his allusion to children playing with the plant enhance his description of blewbottle.

Blewbottel groweth in ye corne, it hath a stalke full of corners, a narrow and long leefe. In the top of the stalke is a knoppy head wherevpon grow blewflowers about midsummer. The chylder vse to make garlands of the floure. It groweth much amonge Rye wherefore I thinke that good ry in an evell and unseasonable yere doth go out of kinde into this wede.

In his description of burnet the plant takes on the life-like quality of fowl.

Some of the finer sort hold that this herbe ought to be called Bipennula or Bipinnula because ther growe ouer thawart ye leafe two and two little leues like vnito the wings of brides standing out as the bird setteth her wings out when she intendeth to flye.

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63 William Turner, Herbal (Cologne, 1568), parts I & II, p. 113.
64 Ibid., parts I & II, p. 189.
65 Ibid., part III, pp. 9-10.
And, in writing of camomile, Turner included the various uses of the plant:

It hath floures wonderfully shynyng yellow and resemblynge the appell of an eye...the herbe may be called in English golden floure. It will restore a man to hys color shortly yf a man after the longe vse of the bathe drynke of it after he has come fourthe oute of the bath. This herbe is scarce in Germany but in England it is so plenteous that it groweth not only in gardynes but as VIII mile aboue London, it groweth in the wylde feld, in Rychemonde grene, in Brantfurde grene. Thys herbe was consecrated by the wyse men of Egype vnto the sonne and was rekened to be the only remedy for all agues.\(^{66}\)

Most of the plants were accompanied by drawings.

"One of the most attracting features of the Herbal is the number of beautiful woodcuts with which it is illustrated. A few were specially drawn and cut for the author, but the great majority were reproductions of the exquisite drawings in Fuch's herbal (De historia stirpium, 1545; and Neue Kreüterbuch, 1543)."\(^{67}\) These drawings often facilitated the recognition of plants by other botanists. Indeed, if it were not for these engravings, it would have been difficult to identify many of the plants merely by their Early Modern English names.

Turner distributed the herbs alphabetically. The alphabetization of the plants was made according to their

\(^{66}\) Ibid., parts I & II, p. 47.

\(^{67}\) Rohde, p. 84.
Latin names and not according to their common names: for, at that time, many herbs to which Turner referred were unknown in England and, therefore, had no common English nomenclature.

Turner not only differentiated between the high and low German names, but also gave the English nicknames of plants from places like Northumberland, Cambridgeshire, Kent, Somersetshire, Essex, Dorsetshire, Richmond, Bristol, Dover, Westchester, Portland, and many others. Here is an example of how Turner distinguished the differences between regional names.

Centunculus called in York shyre Cudweede and in Northumberland Chafweed because it is thought to be good for chafinge of anye mans fleshe with goynge or rydinge.69

The name for daisy in the Northern dialect was "banwurt" for "ban" is the word meaning "bone."

The Northern men call thys herbe banwurt because it helpeth bones to knyt agayne.70

Additional examples of this type of folk etymology were found for devil's-bite, wolfbane, shepherd's purse and numerous other plants in the herbal.

Throughout the herbal, Turner related folk customs connected with herbs. He wrote of an odd use of cleavers,

69 William Turner, Herbal (Cologne, 1568), parts I & II p. 119.
70 Ibid., parts I & II, p. 78.
Goosehareth is called also Clyuer because it cleueth upon mennes clothes. Shepherdes vse cliuers in stede of a strayner to pull out here of the mylke.\textsuperscript{71}

He told of the heath he saw as a boy in Northumberland.

The hyest hethe that euer I saw groweth in Northumberland, which is so hyghe that a man may hyde himself in.\textsuperscript{72}

Concerning sea-wrake [seaweed] Turner claimed that the farmers on the seaside of Northumbria used it to fertilize their lands.

In the Bishopriche of Durham the housbandman of the countie that dwel by the se{\textsc{a}} syde vse to fate their land with sea-wrake.\textsuperscript{73}

Teasel was used by fishermen for the worm found in the flower. "In the wild tasel is found a worme when the heade is full rype which fishers vse for baite."\textsuperscript{74} Turner found that birch was adaptable to various uses:

Fisherers in Northumberland pyll off the uttermost barke and put it in the clyft of a sticke and set in fyre and hold it at the water syde and make fish come thether, whiche if they se they stryke with theyr leysters or sammonsperes. Birderers take bowes of birch and lime the twigges and go a batfolinge with them. The Frenche men set out of it a certain iuice or such otherwyse called Bitumë. The same is good to make hoppes of and twigges for baskettes, it is so bowinge.\textsuperscript{75}

\textsuperscript{71} Ibid., parts I & II, p. 50. 
\textsuperscript{72} Ibid., parts I & II, p. 142. 
\textsuperscript{73} Ibid., parts I & II, p. 205. 
\textsuperscript{74} Ibid. 
\textsuperscript{75} Ibid., parts I & II, p. 84.
But the best use of birch that Turner found was:

It serueth for many good vses and for none better then for betinge of stubborne boyes that ether lye or will not learne.\(^\text{76}\)

And finally, of the spindle tree, a tree to which Turner apparently gave the name,\(^\text{77}\) he mentioned its use in making spindles, a practice which has long since disappeared:

Yet for al that I coulde neuer learne an Englishe name for it the Duchemen call it in Netherlande Spilboome that is Spindel tree because they vse to make Spindles of it in that countrey and me thynke it maye be so wel named in English, seying we haue no other name. I know no good propertie that this tree hath, sauing onelye it is good to make spindles and brid of cages [bird cages].\(^\text{78}\)

Turner has been shown, up to this point, to be a polemicist and a scientist who attempted to work by careful investigation. With his acute desire for thorough research, Turner noted many slipshod analyses both in religious and in scientific treatsies. His own investigations were exhaustive, especially in his last herbal, observing everything concerning herbs from their morphology and foreign names down to the folk customs in which herbs were employed. The second part of this chapter will investigate Turner's observations in the writing of his final herbal.

\(^{76}\) Ibid.

\(^{77}\) Rohde, p. 89.

\(^{78}\) William Turner, Herbal (Cologne, 1568), parts I & II, pp. 217-18.
The Thin Red Line

Turner was a man absorbed in his medical profession.\textsuperscript{79} He showed his concern for proper study of medicine and the use of herbs in prescriptions. His concern for proper study will now be estimated by investigating his study of the properties of herbs and his herbal remedies.

In the sixteenth century, herbs were not classified according to genera as they are today. Included in the earlier classification were vegetables, fruits, and nuts. Turner, in his herbal, gave the therapeutical properties of such vegetables as artichokes, beets, beans, carrots, chick peas, cucumbers, oats, and onions; of such fruits as currants and mirobalanes; of such nuts as almonds, "nutte of Inde" [coconut], chestnuts, and hazel nuts; and, moreover, of such spices as caraway, chervil, cloves, coriander, anise, dill, cumin, tansy, and garlic.\textsuperscript{80}

\textsuperscript{79} Turner wrote this statement concerning his profession before he was ordained a priest in 1552: "Although it be not belongyng vnto my profession, to dispute of matters of diuinite, which am a Phisician..."; A new dialogue vyherin is conteyned the examinatiō of the messe (London, 1548), p. ii.

\textsuperscript{80} There is a possibility that many excellent remedies came as accidental cures from spicy dinners. It is strange to note that, at present, most of the herbs are considered solely as spices without the simple realization that many are helpful for digestion of the foods with which they are being prepared. At least it is possible to say that the use and the knowledge of spices was almost as broad as it is now.
A majority of Turner's remedies consisted of: decoc­tions, of crushed herbs mixed with wine, vinegar, or honey; of the oils extracted from plants; and of poultices. The herbs were used either in the form of a drink or in the form of a plaster applied to the body. Occasionally, there appears a cure which required the patient to sit over a bath of steaming herbs. These were remedies reserved usually for childbirth or labour.

In this thesis, the uses of the herbs have been separated into seven groups. They are: [common] ailments, diseases, antidotes, veterinary medicine, aphrodisiacs, cosmetics, and "cure-alls." This arrangement has been made in order to stress the main medicinal quality of each herb. Most of the herbs had a wide range of therapeutic values, but it is easier simply to stress the category in which the properties of certain herbs fit best.

The great part of ailments Turner described were: inflammations, eye infections, menstrual complications, shortwindedness, excess of phlegm, dismembered joints, dysuria, flatulence, swellings, tooth aches, and problems of lactation in mothers. Turner emphasized especially the use of herbs for "weomens sicknesses."

In the category of diseases were found: dropsy, jaundice, palsy, gout, leprosy, kidney stones, epilepsy, sciatica, quinsy, liver and bladder complications, worms,
Saint Anthony's fire, quartaine ague [archaic term for malaria], "Frenche poxe" [archaic for syphilis], "guelsough" [archaic for jaundice], "hitchcock" [obsolete for hiccup], and "stranguillion" [archaic for strangulation].

Each of the remaining five groups was quite small. Antidotes were found for snake bites, scorpion bites, bites of field spiders [brown spiders], toadstool poisoning, and bitings of "mad dogges and men." There was also a concoction which "dryueth away lyse, mittes, felde speders, gnattes, and flees." Under cosmetics were classified hair restoratives and breath sweeteners. Cures for freckles will be put along with cosmetics, although, at that time, they were called foul spots and held to be a sign of sickness. Finally, in the "cure-all" group were herbs which had diverse properties strong enough for combinations of two or more infirmities.


83 Ibid., V, 309a.

84 Ibid., X, 1083a.

85 The sight of freckles and "foule spottes" on a person could have put an onlooker into dread fear, thinking they were blotches related to some form of pox or skin disease. Freckles were just not accepted then as beauty marks and were not in the vogue as an attractive physical feature.
Examples will now be given in each of the seven groups. First, Turner's analysis of the medicinal properties of herbs will be set forth. These will be compared with quotations from contemporary herbalists (H.L.V. Fletcher, and Donald Law) on the present evaluation of the therapeutic values of herbs. In such a collation it will be possible to see if Turner's knowledge of the medical functions of plants was truly an aid to his countrymen, as he, as a doctor, wished it to be.

Among the herbs listed for ailments, the first is angelica. Turner claimed:

That if any man be sodenly taken ether with any pestilence or any soden pestilent ague or with to much soden sweting, let him drinke of the powder of the roote of Angelica halfe a dram mingled with a dram of triacle, in thre or foure spoundfullis of the water of Angelica distilled out of the rootes and after go vnto bed and couer him selfe wel and at the lest faste thre houres after, which if he do, he shal beginne to sweate and by the helpe of God he shall be deliuered from his disease.

A modern herbalist says, "As medicine the herbalist uses it as a tonic, to produce perspiration and for coughs and colds.

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86 H.L.V. Fletcher: modern herbalist, author of three botanical works, who has used as his sources Mr. W.L. Shewman and the British Pharmacopoeia.


88 William Turner, Herbal (Cologne, 1568), part III, p. 5.
The stems, if chewed, will relieve flatulence. "Doctor Law claims, "In a decoction the herb will promote perspiration, relieve heartburn and dyspepsia." And a modern book on medical botany states, "The powdered root or an infusion from it has another use—it may be prescribed as a mild stimulant and expectorant."

The herb shepherd's purse was also prescribed by Turner for ailments:

It is good sodden with rain water, Plantaine and Bolus against the bloodye flixe, and against the spittinge of blood. [It] is not only good for the bloodye flixe, but also for them that pisse blood. The iuyce put in a linnen clout, and stopped in a mans nose, stoppeth the running out of blood.

Shepherd's purse seems to have fallen in medical opinion. Fletcher says, "Though as a medical plant it has somewhat fallen from its high estate it was, long ago, made into a potion to stop bleeding, either inwardly or from wounds."

Turner offered these remedies from eyebright:

The wine of Eyebright is made for the eyes by puttinge the herbe into the must untill it be at length perfitt wyne, whose vse maketh the eyes of old men waxe yonge again and taketh

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92 William Turner, Herbal (Cologne, 1568), part III, p. 15.
93 Fletcher, p. 132.
awaye the hindrance of them and the lacke of sight in any man of what age soeuer he be of, chefely if there excede fat and fleme. There was a man that continued blinde a long tyme and within a yere was restored to his sight againe. And there are credit worthy witnesses aliue as yet that haue tryed this in them selues which could not rede without spectacles and afterward red a small test without spectacles.

Law, however, gives different medicinal properties for eye-bright without mentioning its value for ocular disorders. He says, "The fame of this herb is connected to the healing of wounds, all kinds of wounds, cuts and sores. It has styptic properties which relieve quinsy and ease most throat and oral disorders. It makes a gargle and a mouth-wash."\textsuperscript{95}

Rhubarb is one of the herbs placed in the disease curing classification. Turner wrote that it was good for the "yelow sickness," dropsy, and "stoppeth the spittinge out of blood out of the lunges." Law holds that rhubarb is good for liver disorders which includes jaundice. He writes, "It alleviates a number of liverish complaints and such headaches as emanate from hepatic disorders."\textsuperscript{97}

As for the properties of anemone, Turner found that,

\begin{itemize}
\item \textsuperscript{94} William Turner, \textit{Herbal} (Cologne, 1568), part III, p. 30.
\item \textsuperscript{95} Law, pp. 115-16.
\item \textsuperscript{96} William Turner, \textit{Herbal} (Cologne, 1568), part III, p. 65.
\item \textsuperscript{97} Law, p. 105.
\end{itemize}
"If lepres be anointed there with, it scoureth them awaye."^® Fletcher concurs: "It was used in the East in ointments for leprosy."^® Law gives only hearsay evaluation of its medicinal value. "I have not had occasion to use this herb yet, but in the eventuality of some cataclysm or disastrous warfare destroying our organised services it might be useful to recall that this was commonly used to relieve cataract of the eye, diseased corneas, etc., also to bathe lepers."^®

One of the more interesting herbs found in the group was lavender. Turner listed a number of valuable uses for lavender, but the most curious one was for disorders of the head.

I judge that the floures of Lavandre quilted in a cappe and daylye worn are good for all diseases of the head that come of a colde cause, and that they conforte the brayne verye well.101 Fletcher has only this to say: "William Turner said: 'It is a great comfort to the braine.' I think that sums it up fairly."102

[^®]: William Turner, Herbal (Cologne, 1568), parts I & II, p. 42.
[^®]: Fletcher, p. 113.
[^®]: Law, p. 33.
[^®]: Fletcher, p. 77.
It is strange to note, however, that Turner never mentioned the use of lavender in perfume.

Among the herbs said to be antidotes for snake bite, Turner cited agrimony, calamint, and heath. He even claimed that carrots were good for the bitings of field spiders. No modern herbalist supports these uses. Most amazing of all was Turner's claim that horehound was good for dog bites. Today, horehound has been reduced to the state of flavoring mundane cough drops.

Among the cures of veterinary medicine were found two herbs, bear's foot and chickweed, the former was good for diseased cattle and the latter for caged birds. Of bear's foot Turner said,

We knowe (sayeth Columella) a present remedy of the rote which shepherdes cal consiligo yt groweth in greate plentye in Mersis mountaines, and it is very holesome for all cattel. They say it should be vsed thus, The brodest parte of the eare must haue a rounde circle made aboute it wt the blood that run­neth furth wyth brasen botken, and the same circle must be round lyke vnto the letter O, and when this is done without and in the higher part of the eare, the halfe of the forsaid botken, and the roote of the herbe is to be put in at the hole, which when yt newe wounde hath receyued, holdeth it so fast that it wil not let it go furth: 8 than all the mighte and pestilent poison of the disease is broughte so into the eare. And whilse the part which is circled aboute dyeth and falleth awaye, yt hole beast is saued with the lose of verye smal parte.103

For domesticated fowles in cages he says:

They that kepe littel byrdes in cages, when that they are sycke, gyue the birdes of this herbe [chickweed] to restore them to their healthe againe.104

Turner seemed to have mentioned aphrodisiacs only in passing among the other virtues of herbs. Under hound's tongue can be read: "It helpeth also the issue of sede and catarres."105 Coriander has its own regenerative properties: "It increaseth the sede."106 False bishop's weed may help women to conceive sooner. Nutmeg, "is also profitable for cold housbanDES that would fayne haue children but not for lecherouse bore and bulles."107 Dill, however, can cause impotence, while water betony that is drunk, "maketh euen men barun and to be withoute childer."108

But, the poisonous hemlock stunts any man's fancy:

The herbe wyth the leaues broken and layd vnto a mannes stones stancheth the imaginations & dreaming of the bodely pleasur which chance vpon the night: but it febleth the member of generation.109

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104 Ibid., parts I & II, p. 31.
105 Ibid., parts I & II, p. 193.
106 Ibid., parts I & II, p. 167.
107 Ibid., p. 40.
108 Ibid., parts I & II, p. 153.
109 Ibid., parts I & II, p. 140.
Turner was severely against the use of cosmetics. He reported dourly of marigolds that,

Some use to make their hear yellow with the flour of this herb, not being content with the natural colour which God hath given them.110

His most vicious attack against cosmetics came in a remedy made of cowslip flowers,

Some women sprinkle your flowers of Cowslip with white wine, and after still it and wash their faces with that water to drive wrinkles away & to make them faire in the eyes of the world rather than in the eyes of God, whom they are not afraid to offend with the sluttishness, filthiness, and foulness of soul.111

For hazel Turner wrote, "The ashes of burned nuttes with hogg's grese layd upon a heade, from which the hear falleth of, it will restore the hear agayne."112 Tansy is a good sunburn lotion.

Our women in Englande and some men that be sunned burnt, and would be faire, either steep this herb in white wine and wash their faces with the wyne, or ellis with the distilled water of the same.113

The herbs which have been designated "cure-alls" were garlic, marshmallow, alkanet, anise, cowslip, germander, and saffron. Garlic was an excellent remedy for ailments, an antidote for poisoning, as well as a good cure for

110 Ibid., parts I & II, p. 105.
111 Ibid., parts I & II, p. 80.
112 Ibid., parts I & II, p. 171.
113 Ibid., part III, p. 4.
freckles. Marshmallow had the same properties as garlic. Alkanet was an antidote, disease cure, and was good for most ailments. Cowslip and germander differed very little in their medicinal value from alkanet. Saffron was a miracle herb. It made an excellent confection, calmed the burning properties of such other spices as cardamom and ginger, cleared the lungs of phlegm and vomit, cleared the voice and increased the seed. Anise was the queen of all herbs.

Anyse heteth and driety, maketh the breth sweter, swageth payne, maketh a man to pisse well, it quencheth the thurst of them that haue dropsey. It is good against the poysyn of bestes and against winde. It stoppeth the bellye and whyte floures, it bringeth milke to the toppes, it stirreth men to pleasure of the bodye; it swageth the hede ake, the smoke of it taken in at the nose, the same poured into the broken eares with rose oyle heleth them. The best is it that is newe, not full of drosse, but well smelling.114

Turner made an effort to caution his readers against the excessive use of any herb. He wrote of onions:

Onions eaten in meat largely make the head ake. When they are sodden they provoke more plètuously vrine. They make them forgetful which in the tyme of sicknes vse them out of measure.115

114 Ibid., parts I & II, p. 45.
115 Ibid., parts I & II, p. 122.
An overabundance of wild cabbage could be a traumatic experience:

This herbe to much occupied in meat engendereth euel and melancolick iuyce. It dulleth the sight and it troubleth the slepe with contrary things which are sene in the dreame.\textsuperscript{116}

And, as most college students these days know,

\textit{Yt hemp sede if it be taken out of mesure, taketh mens wittes from them, as Cori\aa der doth, \& yt the pouder of ye dryed leues of hemp maketh men dronken.}\textsuperscript{117}

Finally, in the third part of his herbal Turner dealt with the degrees of herbs. A degree was a property of a plant which indicated the intensity of heat, coldness, wetness, or dryness of each plant. Turner listed all the herbs and other curatives that he knew in each of the different degrees. Before tabulating the herbs under degrees, Turner gave a definition of a degree together with a strong rebuke about knowledge of that definition.

\begin{quote}
A degre is as littel vnderstanded as it is great-lye occupied in al mennis mouthes. A degree is in Latin gradus and it commeth of gradior to go, \& is named in Greke apostasis, that is standinge or going away from. The cause of this name is this: There are certeyne herbes that are temperate yt is of a mere qualitie or propertie betwene hote and cold \& are neither notablie hote or cold. And if any herbe departe from the temperate herbes toward heat and is sensible felt a lettel hote, it is called hote in the first degre, and if it be a littel hotter it is called hote in ye second degre as though it had
\end{quote}

\textsuperscript{116} \textit{Ibid.}, parts I \& II, p. 89.

\textsuperscript{117} \textit{Ibid.}, parts I \& II, p. 105.
made two steppes or departinges from temporate. If an herbe be very hote it may be called hote in the third degre. If it be so hote as it can be, then it is called hote in the fourth degre and so ye maye vnderstand the degree of cold, moyst, and drye herbes.\textsuperscript{118}

This definition was to facilitate the works of the surgeons to whom Turner dedicated this part of the herbal.

In the first half of this chapter Turner's style and application of folklore in herbal medicine was explored. It was witnessed how he tried to make as complete as possible his research of herbs in his last herbal. The second half of this chapter investigated how close to concise Turner's descriptions of herbs and their medicinal value were by comparing them to modern scientific evaluations of herbs. However, it is difficult to judge how exact Turner's conclusions were on the therapeutical value of herbs by modern standards because of the hesitancy of modern physicians to delve into so-called "home remedies." Note, for instance, the lack of comparisons between Turner's evaluations and the modern evaluations on the properties of herbs for veterinary medicine and aphrodisiacs. The reason for this hesitancy on the part of modern physicians to commit themselves to herbal remedies is two-fold. First, modern remedies of herbal origin are now either synthesized from basic chemicals,

\textsuperscript{118} Ibid., part III, p. ii.
or are chemical refinements of the natural drugs, or are chemical derivatives of the natural drugs. There are two reasons why drugs developed chemically are being used today. Drugs can now be produced in laboratories of pharmaceutical companies under controlled conditions. Under these controlled conditions, drug manufacturers can regulate the purity and potency of the chemicals. This means that the chemicals used in the production of drugs are only of the highest quality and that their strength or dosage is regulated. Herbal remedies cannot be so regulated, for the strength of their medicine depends upon the amount and the quality of necessary chemicals present in the plant. For example, if two of the exact same plants are picked for use in a cure, it is difficult to determine, without chemical analysis, which of the two plants contains the necessary chemical in greater quantity and in purer quality. The second reason why chemically created drugs are being used today is cost. It is cheaper for the pharmaceutical companies to manufacture some of the chemicals in their laboratories according to formulae already available to them. This statement must be qualified, however, for it would oftentimes be less expensive for the pharmaceutical companies to buy the plants and to extract the chemicals from them. Many pharmaceutical companies simply harvest a herb crop, package it, and sell it on the market. Therefore, doctors do not prescribe herbal
remedies because modern drugs can be produced with controlled purity, potency, and cost.

The second reason why modern physicians will not commit themselves to herbal remedies is because many cures have been completely disproven or have fallen into disfavor. Some herbal remedies were disproven through chemical analysis and scientific experimentation. Some remedies have fallen into disfavor simply because nothing definite has been confirmed about their therapeutic value as of late. For example, the use of an herb such as marijuana as an aphrodisiac has not been completely verified or completely refuted. Modern physicians thus refuse to employ some herbal remedies because their therapeutic value is in doubt. Contemporary doctors also hesitate to prescribe a remedy which has doubtful therapeutic value because it is sometimes ineffective. Doctors also hesitate to prescribe doubtful remedies because they may endanger the life of a patient.

It is the thin red line between killing and curing a patient with herbal remedies which makes both Turner and modern physicians cautious in their use. In Turner's time, the chances were good of killing a patient by a well-meant attempt at curing him. Turner knew that a physician must have as exact a knowledge of herbs as possible, together with their properties, and their therapeutic value if a cure were to be successful. This is
why Turner sought a better knowledge and handling of her­bal preparations through greater study of the ancients and the contemporaries and through more careful research. Although it is difficult to draw a final conclusion on the efficacy of Turner's therapeutic value of herbs, it can be said that his work was careful and encyclopedic while, at the same time, it tried to avoid unwarranted mishaps on innocent people.
CHAPTER III
WILLIAM TURNER: DOCTOR AND DIVINE

In the two preceding chapters, William Turner's biography has been presented and his last herbal has been described. It is in this final chapter that some picture of Turner's Weltanschauung will be formulated from his life and works. In the first half of this chapter, Turner's epistemology, which Turner revealed either explicitly or implicitly, are faith, theology, reason, science, and the interplay among all of these. The second half of the chapter will deal with Turner's ethics and his motivations and his reasons for studying herbs as a science. From a study of his epistemology and ethics, a picture, admittedly incomplete, will emerge of the intellectual justification for the sixteenth-century England he loved so dearly.

Faith is the focal point of Turner's epistemology. He described faith thus:

It is not onely a knowledge, wherby I do surely assent to all things which God hath opened to us in his wordes: but also sure trust kindled in my harte by the Holy ghost through the Gospell, wherby I am at peace with God, surely rekenyng with me selfe and iudgeyng that foregueness of sinners, euerlasting life a rightuousness was geue not only to other but also to me, that freely by ye mercy of God, for the deserving of Christ alone.\(^{119}\)

But faith is not only in itself an efficacious epistemological method, it is also the basis for another: theology. Although Turner claimed to be a physician by occupation, after his ordination he dedicated his life primarily to the study of theology and a desire to fulfill the precepts of Christianity in his own life. Turner substantiated this in one of his later works:

For surely beyng so much vexed with sicknes, and occupied with preaching, and the study of Divinitye and exercise of discipline. I haue but smal leasure to write Herballs.  

For Turner, theology was the application of reason to the data supplied by faith. Although Turner did not explicitly define reason, he stated that much is known by "the lyght of your reason and learnyng." He reasserted his confidence in reason as an effective epistemological tool by saying, "I will proue by good authoritie and reason," and again, "so long as it shal be founde reasanable."

Understandably, Turner's theological works best reflect his use of reason on faith. For example, in The

120 See p. 20.
121 William Turner, A new Herball (London, 1551), Taken from Rohde, pp. 83-84.
124 Ibid., p. iij.
huntyng & fyndyng out of the Romishe fox, Turner tried to justify logically how, in speaking of the pope's doctrine, one was, in essence, referring to the pope. The argument reads:

Ye nede not be ashamed to call the popes doctrine the pope for it is a receyned maner of spekyng in thes dayes among scholares and hathe bene receyned of long time bothe of hethen and holy writers to call a mannes doctrine or booke by the name of hym that made it. If ye ax a schollare of Cambrydge what is red in the Philosophi scholes he will answer Aristotel. If ye ax what is red in the humanite scholes he wil answer and say Terence meanyng by Aristotel and Terence the doctrin and bokes whiche Aristotel and Terence made.125

For example, in The huntyng & fyndyng out of the Romishe fox Turner reasoned that the Bible was far superior to canon law in statements concerning theology. He said:

The law of the gospell is mor perfit law for the Christen then the law of Moses was for the iewes.126

Thus, Turner believed that the Bible was the foundation for the basis of religion. He wrote:

For the law of Christes chirche, of which englod is on part is the new testamet and the old, that is to wit the doctrine that the Prophetes, the Apostelles and Christ taught and not the canon law with the de­cress and decretalles and the ordinances whiche popes of Rome haue made.127

126 Ibid., p. 36.
127 Ibid., p. 27.
The authority of the Bible was not only explicited, but complemented by reason:

Thys matter is proued to be true, not only by physik and naturall reason, but also by scripture.128

Turner argued implicitly that canon law was man-made and therefore susceptible to periodic reworking in order to keep it abreast of the new modes of thought so that it would be a guide to bring the laity back into the church where they belonged. He continued his degrading of canon law by claiming that the hierarchs of the church had created canon law in a corrupt manner for their own personal benefit and only occasionally for church gain. He wrote that these canonists and hierarchs had twisted canon law so badly as to handle the church as their private slut. He shouted in righteous indignation:

Ye craftey canonistes, ye play with hally water, pope Alexanders daughter as a certayn canonist, a gentleman of the chirche did with an hore of hys. He occupied hys hore very long and sum began to spy her. He then willyng to hold hys hore still, cut hyr hare and made hyr a scholares short goW and so he went up and doun in the town withe her and noman suspect hyr, neuer the less he was a very hore and hys patron lay with hyr every night. So dyd ye long abuse thys for-sayd popes daughter, but as soon as your fornication was spoke agaynst in the pulpit, ye changed hyr apparel and put on hyr the signification of christes bloud on the day that is to wit when learned men was by you and hyr and spake agaynst you, and on the nyght when lerned men

were away, with praesence of a few blynde wyues ye abused hyr as ye had want to do.\textsuperscript{129}

Turner implied that, because the canonists had warped canon law to their own benefit, they had forgotten the reasons why the law was written and why they believed in it. He put forth an argument that the canonists had even forgotten the true doctrine of salvation. He claimed:

If that deth and lyfe be taken as they stand wyth out a figure then ye mea that ye can rais mē from deth to lyfe (o connyng coniurers). If ye understande the wordes figuratly, then, ye mean that by the mes ye can delyuer soules from theyr deth whiche is damnation to lyfe that is theyr salvatiō. Thys sing ye in every dirgi mess, and ether you beleue thys that ye syng or beleue it not. If ye beleue it not ye do euel to make men slayn for spekyng agayn it that ye beleue not yourselues.\textsuperscript{130}

Extending his argument that the Bible was better than canon law, Turner went on to criticize twenty-seven points of canon law which he felt to be corrupt. He cited such doctrines as cross worshiping to the extent of image worship, not praising God in Hebrew from Septuagesima to Lent, laymen not being allowed in choir during Mass, fasting on Saturdays, priests not marrying, priests making unlawful vows, the worship of saints and the Blessed Virgin Mary, and the laity not receiving Holy Communion \textit{sub utraque specie}. In the spirit of modern scholarly investigation,

\begin{flushleft}
\textsuperscript{129} William Turner, \textit{The huntyng \\ fyndyng out of the Romishe fox} (Basel, 1543), p. 45.
\textsuperscript{130} \textit{Ibid.}, p. 15.
\end{flushleft}
Turner cited along with each point of doctrine the popes who had accepted each as canon law [Gregory III, Gregory VII, Alexander I, Felix I, Pelagius, Urban II, Leo IV, and Innocent I] and quotations in Latin, which stated every point of doctrine from the law.

Turner was so specific in his quotations to illustrate the corruptions of canon law, that he noted how the original meaning of the Mass was abused for the healing of sick animals. He wrote:

For ye hold in your helli missal vnput out and vnpreached agaynst Missam pro mortalitate animalium. A mes for the deathe of bestes and cattell. Then if the mes be the recyuyng of Christses body and bloud then for dogges that ar syke, for syk calues and rotten shepe ye hold still the recyuyng of christes body and bloude that thes bestes shuld not die. If to recyue the sacrament in the remembrance of scabbed shepe or messelled swyne that Christ ordered to be recyued in the remembrance of hys hole passion be not Antichrists doctrine and ther fore the popes, say ye whose doctrines it is and who put it in your missal and why haue ye not scraped that out as well as the popes name.\textsuperscript{131}

He went on to point out the minute details of how the canonists had pushed canon law so far as to be unsanitary. Referring to baptism, Turner was outraged at how far the letter of the law was followed. The argument reads:

Ye hold still that a preste thogh he haue the frenche pox or the cãcre in his mouthe must spit in to a yong childe mouthe or ellis that he cannot be baptized or christened of the same.\textsuperscript{132}

\begin{table}[h]
\centering
\begin{tabular}{ll}
131 & \textit{Ibid.}, p. 13. \\
132 & \textit{Ibid.}, p. 19. \\
\end{tabular}
\end{table}
Canonists were so involved in obeying the letter of the law, they were confused as to which pope had decreed which law.

Ye hold still embryng dayes whiche Urbanus made as sum writers hold and others write that it w a s . Pop Calixtus.133

But Turner believed that an appeal to any of the hierarchs of the Roman church, especially the bishops, for reform was utterly useless. They had become too materially oriented. Speaking on the decree of marriage of the clergy by Gregory VII, and the duty of the bishops to fulfill it Turner wrote:

And he [Gregory VII] promised you so lange as ye wold do so that he wold help you to hold still your temporall lands, your great honor, riches, and dignite. And so my lorde for the upholdyng of your pompos state ye will not dryue out of englond the forbiddyng and forswearing of mariage for of that mater ye feare that your honor and estimation doth hang.134

And so, Turner did not feel any remorse when he called them "canonisticall canannites,"135 "craftey canonists,"136 and "bald shauen shepe whiche haue the popes mark in your crounes."137

133 Ibid., p. 20.
134 Ibid., p. 76.
135 Ibid., p. 45.
136 Ibid., p. 47.
137 Ibid., p. 85.
Thus, Turner attempted to justify writing *The huntyng & fyndyng out of the Romishe fox* by claiming as his argument a lack of learning on the part of the canonists. He bellowed:

> If ye be traytores and hertikes and unlearned asses and haue no knowledge but in canon law and in old gloses and fantases of men answere nothyng to my argumètes but forbyd my book to be red.\(^{138}\)

With a final threat Turner tried to protect his book saying:

> But if ye condemn my book and cannot ouercum it by the word of god i shall set a play of your mischeuous tyranny in latin, that all learned men that are now alyue and the age for to cu shall know you what ye be and what ye haue bene.\(^{139}\)

And, as he did in some of his books, Turner demanded that if his beliefs were found to be in error they must be refuted by Scripture, to which he would only recant:

> Euen so I, after that I had made thys litle boke, and set it in as good order as I coulde, fearyng, nay rather perceuyng, knowynge that there shall many aryse, whych wyl either flaunder it before they haue caste and reproued it by any sufficient witness, either of scripture or by reason...Yf that any wyfe and learned man can reproue and iustly overcome anything that I haue wrytten in thys booke, wyth reason and scripture, I wyll amende it that is amysse: and recant it wyche is wrytten agaynst the scripture.\(^{140}\)

If reason and scripture were essential to Turner's

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138 Ibid.
139 Ibid.
theology, reason had another role to play: in his science. In Elizabethan England, many physicians were humoralists following the Greek tradition of healing expounded best by Galen. They viewed the human organism as an ongoing process that functioned properly through a balance of fluids. By endowing herbs with "degrees," as Turner called them, the balance of bodily fluids could be maintained. Thus, from a review of the second chapter of this thesis, it must be that Turner was a humoralist, and therefore the study of the science of herbs was necessary for his knowledge of healing.

Turner did study and learn the science of herbs extensively. But the question arises: what constitutes science? Turner's answer was that science consisted of the application of reason to sense data obtained directly from observation or indirectly from the observations of authorities.

Sense data may be measured in two ways, quantitatively or qualitatively. Quantity refers to exact measurements of "how much" or "how many." Turner quantified herbs by listing their height, root length, leaf size, flower arrangement, and other similar characteristics. Descriptions like the following can be found throughout the Herbal:

I sawe about sixe yerers ago at Colon a litle shrubbe, something lesse than my hande, which was in al pointes like vnto the shrub aboue described. A certeine pilgrrem whiche had
bene at Hierusalem brought it out of Jewry with him.\textsuperscript{141}

Turner also gave exact measurements used in the mixing of herbal remedies:

Halfe a dram mingled with a dram of triacle in thre or four spountfullis of water.\textsuperscript{142}

Turner also used qualitative descriptions of data provided by the senses. He included in his description of herbs the Greek, Latin, English, French, German, Friesian, Italian, and Spanish names of the herbs. Turner qualified the English names still more by noting the different dialectical nicknames of the herbs according to the corresponding English counties. He arranged the herbs alphabetically, pre-dating the Linnean system of classification. In listing the illnesses which the herbs cured, Turner did not specifically ascribe certain qualities to them. But, after reading his Herbal, one can select certain classes into which most of the illnesses fall. They are: common ailments, diseases, antidotes, veterinary medicine, cosmetics, and aphrodisiacs.

Turner also qualified the herbs he noted by citing specific locations where they could be found. He listed such places as:

\textsuperscript{141} William Turner, \textit{Herbal} (Cologne, 1568), parts I & II, p. 36.

\textsuperscript{142} Ibid., part III, p. 5.
Five English miles above Bon...\footnote{143}

Yt groweth in greate plentye in Mersis mountaines...\footnote{144}

But as VIII mile above London, it groweth in the wylde felde, in Rychemonde grene, in Brantfurde grene...\footnote{145}

Sense data can also be classified according to the method by which information is gathered. Turner's first source was his personal observation. His great herbal is plentiful with descriptions of what he had observed, specifically with reference to plants and their locations which he noted on his trips through Europe. There is a plethora of notations in his herbal such as the following:

I went into Italie and into diuerse partes of Germany to knowe and se the herbes my selfe.\footnote{146}

I would not set furth my latin herbal before I haue sene the west partes...\footnote{147}

I knowe that growinge in certeine places...\footnote{148}

I haue sene...\footnote{149}

The second source of gathering data is from authority.

\begin{footnotes}
\item[143] \textit{Ibid.}, parts I \& II, p. 48.
\item[144] \textit{Ibid.}, parts I \& II, p. 160.
\item[145] \textit{Ibid.}, parts I \& II, p. 47.
\item[146] \textit{Ibid.}, parts I \& II, p. iii.
\item[147] \textit{Ibid.}, parts I \& II, p. ii. Taken from Rohde, p. 88.
\item[148] \textit{Ibid.}, parts I \& II.
\item[149] \textit{Ibid.}, parts I \& II.
\end{footnotes}
Turner used two kinds of authorities, the classics and his contemporaries. Turner drew heavily on the ancients, never questioning their judgments or the thoroughness of their investigations. In the preface to the third installment of his *Herbal*, Turner listed the ancient writers he used as sources. Some of the great persons mentioned are: Democritus, Dioscorides, Theophrastus, Virgilius Maro, Galen, Cato, Varro, Columella, Pliny, and Avicenna.\(^{150}\)

Turner also cited directly from classical herbs and botanical works, for example:

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Thys herbe was consecrated by the wyse men of Egypt unto the sonne and was rekened to be the remedy of all agues.\(^{151}\)

The vertues of...from Pliny in de methodo medendi.
The vertues of...according to Mesue.
The vertues of...out of the Arabianes.
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For his contemporary sources, Turner drew from his great Protestant friends Gesner and Fuchs. Listed opposite the ancients in the preface to the third installment of the *Herbal* are the names of Turner's other contemporaries such as Tragus, Ghini, Brunfels, and Matthiolus.\(^{152}\) Turner carried on a heated dispute with these savants over the identification, classification, and therapeutic value of

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150 Ibid., parts I & II, p. iij.
151 Ibid., parts I & II, p. 47.
152 Ibid., parts I & II, p. iij.
the newly discovered plants not listed by the ancients. This, however, is a problem which will be returned to in the examination of Turner's ethics.

Science for Turner was the working of reason and sense in partnership; reason in the structuring and presenting of ideas and arguments, and sense in the observing and collecting of quantitative and qualitative data from the senses and from authority. Thus, he considered reason and his senses to be valid epistemological tools.

Turner also noted a positive relationship between religion and science. Indeed, he attempted to unite his faith with the study of science. With a firm belief in Christianity, and an appeal to the authority of the Bible, Turner believed that science was interwoven with faith.

The study of Turner's epistemology necessarily leads to a consideration of his ethics. More precisely the question is: "Why study science?" Turner justified his study of herbals through passages found in the Bible, which was for him the written word of God given to man by divine revelation. In the preface to the third installment of his _Herbal_, he said:

Although (Most mighty and Christian Prince) there be many noble and excellent actes and sciences, which no man doubteth but that allmighty God, the author of all goodness, hath gyuen unto us by the hands of the Hethen, as necessary unto the use of Mankynd: yet is there none among the verdit of any holy writer in the Bible, as is ye knowledge of plantes, herbes and trees of Phisick. I do
not remembre that I have red anye expressed commendations of Grammar, Logick, Philosophie, naturall or morall, Astronomie, Arithmetyke, Cosmographie, Musycke, Perspectiue or any other such lyke science. But I rede amonge the commendatyons and prayses of Kyng Salomon, that he was sene in herbes, shrubbes and trees so perfectly that he disputed wysely of them from the hyghest to the lowest, that is from the Cedre tre in Mount Liban unto the Hysop that growth furth of the wall. If the Knowledge of Herbes, shrubbes and trees which is not the lest necessary thynge unto the knowledge of Phisicke were not greatly commendable it shulde never have bene set among Salomon's commendacyons and amongst the singular giftes of God. Therefor whereas Salomon was commended for the Knowledge of Herbes the same Knowledge was expressly ynough comended there also.\textsuperscript{153}

Turner believed that man could use his knowledge of herbs, as commended in the Bible, to accomplish a Christian act. If a man loves God, he could justify his work, as a physician for instance, by applying his knowledge of herbs for the benefit of his fellow man, who is made in the image and likeness of God. By doing good for his fellow man, a physician can demonstrate his love of God. Turner expressed this belief when he quoted from Scripture saying:

\begin{quote}
He that hath the substance of thys worlde, and seeth hys brother wantyng helpe, and shutteth vp his bowels from him, how doth the love of God abide in him: How can he love god whom he seeth not, whiche loveth not his neighbour, whom he seeth.\textsuperscript{154}
\end{quote}

\textsuperscript{153} Ibid., parts I & II, p. i. Taken from Rohde, pp. 82-83.

\textsuperscript{154} William Turner, The nevv booke of spirituall physik (Basel, 1555), p. 80.
Turner also stated that doctors and apothecaries should take an interest in the ancients as well as the contemporary writers and their newly found herbs. But Turner took special interest in the study of plants of his own country. He wrote in the preface to his Herbal that English physicians and druggists should also take special interest in the study of herbs for the benefit of their fellow countrymen:

For the knowledge of Herbs, trees and shrubbes is not onelye verye delectable for a Princis minde but profitable for all the bodies of the Princis hole realme both for to preserue men from sicknes, sorowe, and Payne that commeth thereby and also from poyson and death... 155

But, Turner noted that English doctors had not, up to that time written any useful herbal for the aggrandizement of England.

Yet hath none of these [English doctors] set furth any thyng ether to the generall profit of hole Christendome in latin and to the honor of thys realme, nether in Englysh to the proper profit of their naturall countre. 156

Turner knew that English physicians were not as learned as they should have been, for he observed that, even when he was a student at Cambridge, none of his predecessors knew the ancient writings on herbals because of their lack of erudition in Latin and Greek.

155 William Turner, Herbal (Cologne, 1568), part III, p. i.
156 Ibid., parts I & II, p. i as taken from Rohde, p. 84.
For I am able to prove by good witnesses that I have about thirty years ago written an Herbal in Latin wherein were contained the Greek, Latin, and English names of so many herbs and trees as I could get any knowledge of even being yet fellow of Penbrooke Hall in Cambridge: where as I could learn no one Greek, neither Latin, nor English name even amongst the Phisiciones of any herb or tree such was the ignorance of simples at that time and as yet there was no English Herbal but one all full of unlearned cacographes and falselye naminge of herbes. 157

Turner also bemoaned the lack of education of English physicians at another time:

How many surgeons and apothecaries are there in England which can read Plini in Latin or Galen and Dioscorides? 158

He rightfully lamented the lack of education of the physicians because that knowledge is

Necessary for the Phisiciones & apothecaries without the knowledge whereof they can not duly exercise their vocation whereunto they are called for how can he be a good artificer that knoweth the names of his toles nether the toles themselves when he seeth. 159

And again:

Poticaries should be excuselesse when as the ryghte herbes are required of the. 160

Yet, even in his criticism, Turner's national pride is

157 Ibid., parts I & II, p. iij.
159 William Turner, Herbal (Cologne, 1568), parts I & II, p. iij.
evidenced. He did not disclaim, discredit, or abandon his fellow English doctors and botanists.

[They] haue as much knowledge in herbes yea more than diverse Italianes and Germanes whyche have set forth in prynte Herballs and bokes of simples.161

Turner's response to his countrymen's failings was to write an herbal in English, thus winning for himself the title of "Father of British Botany." He wrote so that English doctors would know herbal remedies for the benefit of their countrymen.

I thought I should do no small benefit vnto my countre if I wrote of those plantes. Whereof I haue gathered as many as I knowe at the least as manye as came to my remembrance leuing the rest that have not bene intreated to be intreated of others that haue more leasure than I haue.162

Turner did encounter some trouble with his contemporaries who tried to condemn him for writing in English, claiming that he had stolen his information from other sources, especially themselves.

For some of them still saye, seynge that I graunte that I haue gathered this booke of so manye writers, that I offre unto you an heape of other mennis laboures and nothing of myne owne, and that I goo about to make me frendes with other mennis trauayles...163

To which Turner scathingly retorted:

161 William Turner, Herbal (Cologne, 1568), parts I & II, p. iij.
162 Ibid., part III, p. i.
163 Ibid., parts I & II, p. i; as taken from Rohde, pp. 82-83.
To whom I answere that if the honye that bees
gather out of manye floure of herbes, shrubbes
and trees that are growing in other mennis
meadowes, feldes, and closes; maye instelye
be called the bees honye: and Plinies booke
de naturalis historia maye be called his
booke although he haue gathered it oute of
so manye good writers whom he vouchsaueth to
name in the begininge of his worke: So maye
I call it what I haue learned and gathered of
manye good authores not without great laboure
and payne my booke and namelye because I
handled no one Author...164

Turner, however, was willing to give credit wherever it
was due. He claimed that learning is a sharing process
and that authors should learn from each other.

So yt as I learned something of them so
they ether might or did learne somethinge
of me agayne...165

He also maintained that a scholar who errrs should be re­
proved in Christian charity so that he may learn from his
mistakes and also not commit another unfortunate mishap
on an innocent person.

Yet do I graunte yt of his Herbal. I learned
something but not so addicted vnto him but
that I wrote against him in some partes of
my Herbal where as I thought he erred.166

And again he

Did communicate vnto him in a long Epistel
wherein I did frendlie admonishe him of cer­
teine errours that were in his herball.167

164 Ibid., parts I & II, p. i.
165 Ibid., parts I & II, p. i.
166 Ibid., parts I & II, p. i.
167 Ibid., parts I & II, p. i.
Another criticism of Turner's writing in English was the charge that medical information was being handed out to everyone, thereby endangering the professional practice of medicine and the business of the professional practitioner. Some doctors disguised their economic motivations, claiming that Turner was endangering the lives of many people by giving out this information to everyone.

For now (they say) every man without any study of necessary ars unto the knowledge of Physick will become a Physician...every man may every old wyfe will presume, not without the mordre of many to practise Physick...168

Turner succinctly replied:

Dyd Dioscorides and Galen give occasion for every old wyfe to take in had the practice of Physick? Did they giue any iust occasion of murther? If they gaue no occasion unto every old wyfe to practise physike then gyue I none...169

Turner maintained that English physicians rely on apothecaries and they in turn on the old wives to gather herbs.170 Moreover, since physicians were not present when their prescriptions were made up171

168 Ibid., parts I & II, p. i; as taken from Rohde, p. 84.
169 Ibid., parts I & II, p. i; as taken from Rohde, p. 84.
171 Ibid.
Many a good man by ignorance is put in jeopardy of his life, or good medicine is marred to the great dishonesty of both the Physician and of Goddes worthy creature.\textsuperscript{172}

Turner stood firm in his beliefs and drew an analogy to himself of

The soldier who is more frendly unto the commonwealth, which adventurously runneth among the middes of his enemies, both gyuyng and takyng blowes, then he that, whilst other men feight, standeth in the top of a tre iudging how other men do, he beynge without the danger of gonne shot himself.\textsuperscript{173}

And, therefore, he could rightly claim of himself:

I am no hynderer wryting unto the English my countremen an English herball.\textsuperscript{174}

All this information can now be drawn together to answer the question, "Why study science?" Turner believed that science was necessary as an end in itself. But, more important for Turner, science was divinely supported. Science was a preliminary step for Turner in his primary goal of seeking God. Through the united use of faith in revelation, of reason and sense data, Turner knew he could begin to find God. Revelation, specifically from the Bible, supported the study of science as natural and necessary for the benefit of mankind.

\textsuperscript{172} William Turner, \textit{Herbal} (Cologne, 1568), parts I & II, p. iii.

\textsuperscript{173} William Turner, \textit{Herbal} (Cologne, 1562), part II, p. ii, taken from Rohde, p. 83.

\textsuperscript{174} William Turner, \textit{Herbal} (Cologne, 1568), parts I & II, taken from Rohde, p. 84.
Through reason Turner discovered the divine genius whom he thought the architect of man's corporeal nature, for man is created in the image and likeness of God. Also, through reason, he could establish which plants contained the best medicinal strength which his senses had perceived through personal observation and the readings of his contemporaries and the ancients. Therefore, by applying the knowledge of the Bible, the knowledge of plants, and the study of his contemporaries and the ancients, Turner sought to be closer to God by willfully doing good deeds to his fellow man, the image and likeness of God.

From the preceding investigation of Turner's life and works, some definite conclusions can be drawn. First, Turner was a man of profound devotion. He loved God. He loved each man as the image and likeness of God. From this love of God, Turner united his faith with his study of science to discover God and to act His will. He tried to look behind nature's order to see the face of God. And, loving his neighbor as himself, he engaged in science, not out of pride or thirst of intellect, but in the spirit of charity. Thus he worked for the benefit of mankind, especially his fellow countrymen.

Turner believed in, and attempted to work by, careful investigation. He believed that through better study and education in science and in religion he could work for the benefit of mankind. He exemplified by his own life.
what he advocated concerning better education. He studied at Pembroke hall, learning Latin and Greek possibly better than his predecessors. He travelled through Europe gaining immense first-hand knowledge of the flora growing there before describing herbal remedies of plants he had not seen. With his accumulated knowledge, he wrote herbals containing the best remedies from the herbs he knew. And when he beheld a remedy or property of a plant that he knew was incorrect, he attempted to correct it. For, if some observations or remedies were incorrect, it could have possibly led to the endangering of an innocent person's life. He witnessed religion and religious law being abused by the hierarchs of the church for their own honor. He therefore studied theology and canon law before attempting to mend the doctrines so that they were oriented toward the laity for whom they were meant.

Turner was a man of relentless criticism. But, this is not to be taken in a pejorative sense. Turner's criticism was not destructive but constructive. In his theological writings he did attack the Catholic church, but only because he considered some of its doctrines corrupt. In their place, he offered instead some of the doctrines of the reformed faith based on the Bible which he believed more pertinent or better suited to the people of England at that time. And again, Turner tried to amend kindly the errors which he observed in other scientists'
works. He did not condemn them outright for their mistakes, but offered what he believed to be more correct information. But, for those who persisted in their foolish ways, such as the apothecaries of Antwerp, Turner answered only with straight-forward and vehement derision.

Finally, Turner was a man of powerful character. He possessed the stamina to travel throughout Europe at a time when journeying was difficult and oftentimes dangerous. He allied himself with prominent and powerful figures such as Ridley, Latimer, Lord Cecil, Lord Wentworth, and the Duke of Somerset. He was not afraid to speak out on what he believed to be correct and true. This is witnessed even in his boldness to bring a lawsuit against Dean Goodman. His powerful character and strong beliefs are shown especially well in the invectives that he hurled at those whom he believed to be unchangeable in their erring ways.

Urged by an ethical drive to do good for mankind out of a love of God and working well with the epistemological tools at his disposal, Turner stood out in the history of sixteenth-century England as an interesting, perhaps significant, figure of his age.
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