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Pennsylvania Folklife Vol. 23, No. 1

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Pennsylvania FOLKLIFE

AUTUMN 1973

Contributors to this Issue

DR. LOUIS WINKLER, State College, Pennsylvania, is a member of the Department of Astronomy at the Pennsylvania State University. His article on Carl Friedrich Egelmann in this issue is the seventh in a series on astronomy and astrology among the Pennsylvania Germans. The research has been supported in part with grants from the Central Research Fund of the College of Science of the Pennsylvania State University and the Johnson Fund of the American Philosophical Society.

ARTHUR J. LAWTON, Telford, Pennsylvania, is doing graduate work at the University of Pennsylvania. His interest in folk architecture has brought him to the front ranks of those working in Pennsylvania's architectural patterns. In several Eastern Pennsylvania counties he has made architectural surveys, both for local government agencies and the Pennsylvania Historical and Museum Commission. His paper in this issue on "The Ground Rules of Folk Architecture" was read at the annual meeting of the American Folklore Society at Austin, Texas, in November, 1972.

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DR. RONALD L. MICHAEL, California, Pennsylvania, teaches anthropology at California State College and directs each summer the college's historic sites archaeology program. His article on the Peter Colley Tavern in Western Pennsylvania forms a valuable supplement to his earlier article, "The Searight Tavern on the National Road: An Archaeological View," in *Pennsylvania Folklife,* XXI:1 (Autumn 1971).

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COVER:

Title-page of Egelmann's Vorschrift book—penmanship manual for the Pennsylvania German schoolchild. Courtesy Historical Society of Berks County, Reading, Pennsylvania.

Pennsylvania German Astronomy and Astrology VII: Carl Friederich Egelmann

By LOUIS WINKLER

Introduction

Carl Friederich Egelmann's life before he became an almanac contributor can be found in a variety of biographical sketches.[1] Egelmann (Figure 1) was born on May 12, 1782 in Neuenkirchen, Germany. His father and mother were of titled families and consequently he received a good education. At 17 years of age Egelmann became secretary and then private secretary to the Chamberlain of England, Baron Dinklaga. While in the employment of the Baron he lived with him in Schulenberg, near Batbergen. When the Baron died, Egelmann was without a job, and joined his only living relative, a cousin, in a venture to America.

After arriving in Baltimore in 1802 he served as an apprentice coach-maker for a few years. During this period he made the body of a coach for Jerome Bonaparte, the brother of Napoleon. In his spare time Egelmann also learned the art of copperplate engraving.

By 1809 he was hired to make twelve chairs for President Madison. In the meantime (1808) he was married to Anna Maria Schert (or Schoepke) (1790-1865), who eventually gave birth to five daughters and two sons. Later they moved to Chester, Pennsylvania, where he taught school in English. Subsequently he taught German at the parochial school of Hain's Church of Heidelberg in Berks County, where he also was organist and choir leader. By 1815 he took on these same duties at the Spies Church of Alsace Township in Berks County. During the early 1820's he was living near Reading where he started his career as an almanac contributor and engraver.

[1]Biographical materials on Egelmann include the following: M.L. Montgomery, *History of Berks County, Pennsylvania* (Philadelphia, 1886), p. 407; M. L. Montgomery, *Historical and Biographical Annals of Berks County, Pennsylvania* (Chicago, 1906), II, 978; Notes by E. E. Hafer, Vertical Files, Historical Society of Berks County, dated December 12, 1922; Notes by M. H. Lightwood, Vertical Files, Historical Society of Berks County, dated September 10, 1936; *Historical Review of Berks County,* July 1948, p. 99; R. W. Albright, *Two Centuries of Reading, Pennsylvania, 1748-1948* (Reading, 1948), pp. 114-115; A. L. Shoemaker, in *The Pennsylvania Dutchman,* February 15, 1952; T. R. Brendle and C. W. Unger, *Folk Medicine of the Pennsylvania Germans: The Non-Occult Cures,* Pennsylvania German Society, 1935, pp. 257-287; E. S. Gerhard, in *Historical Review of Berks County,* January 1949, p. 46; D. A. Shelley, *Fraktur-Writings or Illuminated Manuscripts of the Pennsylvania Germans,* Pennsylvania German Folklore Society, XXIII (1958-1959); and Family Bible in the possession of Charles David Eagleman, a great-great-great grandson who lives near Reading.

Figure 1. Carl Friederich Egelmann (1782-1860).

Almanac Calculations Credited to Him

Egelmann's first almanac contributions appeared in 1823 in seven different almanacs *(American Farmer's Almanac, Gemeinnützige Landwirthschafts Calender, Hägerstauner Calender, Hoch-Deutsche Americanische Calender, Neue Readinger Calender, Neue für den Staat von Ohio eingerichtete Calender,* and *Pennsylvania Almanac and Rural Economist's Assistant).* He made the calculations for all seven and wrote an article and a poem for the *Neue Readinger Calender,* and another poem for the *Hägerstauner Calender.* For the next forty years he continued to make contributions to numerous almanacs.

This writer examined many thousands of almanacs in southeast Pennsylvania[2] to find those for which Egel-

[2]The places include the Free Library of Philadelphia, Library Company of Philadelphia, Pennsylvania State Library, and the Schwenkfelder Historical Library; also the libraries of the American Antiquarian Society, Historical Society of Berks County, Franklin and Marshall College, Historical Society of Pennsylvania, Juniata College, Lancaster County Historical Society, and the Pennsylvania State University.

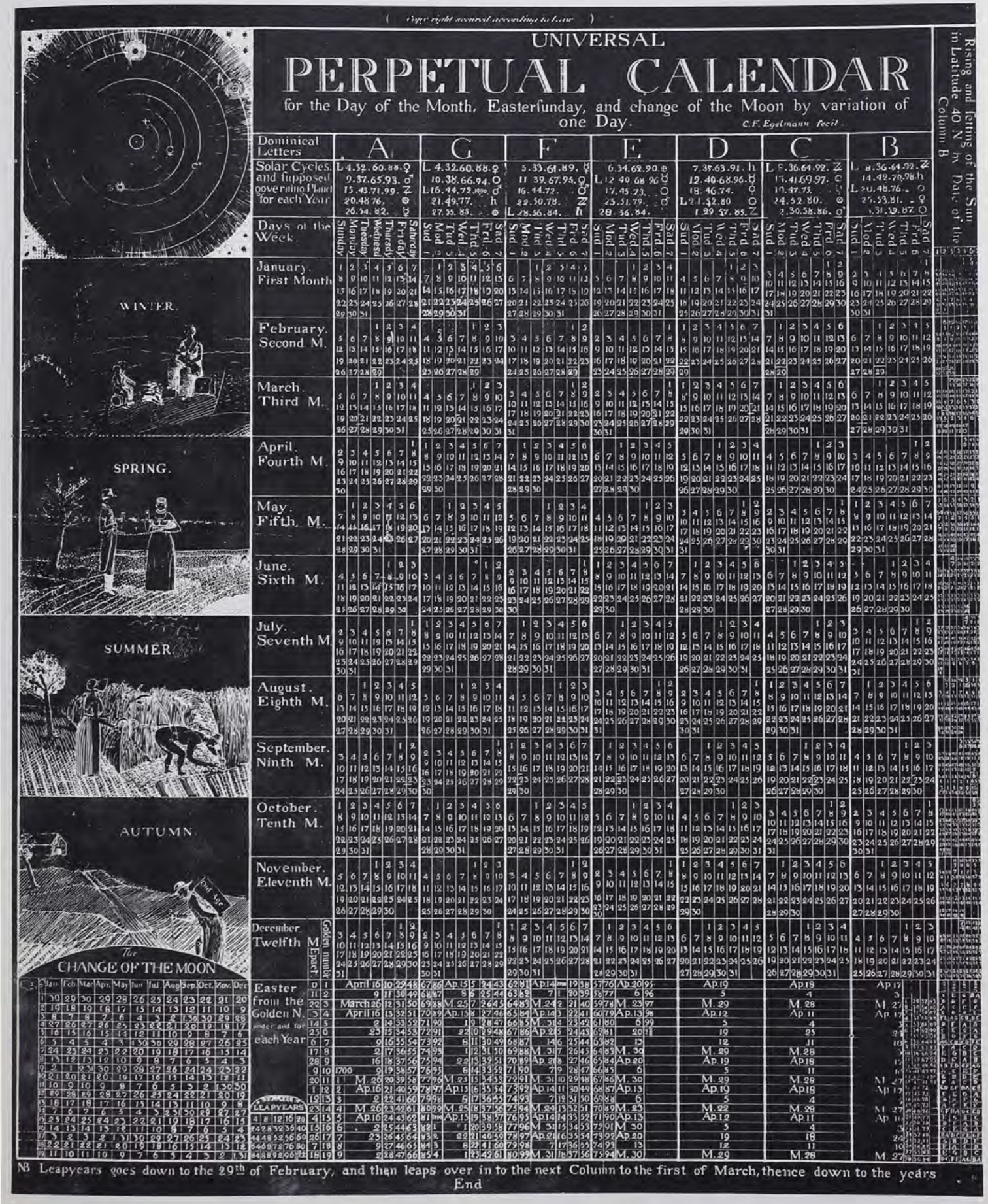


Figure 3. Egelmann's Universal Perpetual Calender.

Finsternissen des Jahrs 1830.

Es ereignen sich dieses Jahr sechs Finsternissen, vier an der Sonne und zwey am Mond, auf folgende Weise:

Die erste ist eine totale Sonnenfinsterniß, den 22sten Februar, um 11 Uhr 35 Minuten Nachts, daher hier unsichtbar; sie ist sichtbar an der Küste des Indischen Meers.

Die zweyte ist eine totale Mondfinsterniß, den 9ten März, um 8 Uhr 30 Minuten Vormittags, daher hier unsichtbar; sie ist im östlichen Theil von Asien sichtbar.

Die dritte ist eine totale Sonnenfinsterniß, den 24sten März, um 9 Uhr 43 Minuten Vormittags, hier unsichtbar; sie ist sichtbar in Brasilien in Süd-America.

Die vierte ist eine centrale Sonnenfinsterniß, den 18ten August, um 6 Uhr 52 Minuten Morgens, hier unsichtbar; sie ist sichtbar auf dem Ethiopischen oder Süd-Atlantischen Meer.

Die fünfte ist eine totale Mondfinsterniß, den 2ten September, um 5 Uhr 37 Minuten Nachmittags, wovon das Ende hier sichtbar ist. Um 6 Uhr 28 Minuten geht der Mond auf, und alsdann hört auch die totale Verfinsterung auf, und der Mond geht am untern Theil aus dem Erdschatten hinaus, wo bis 7 Uhr 25 Minuten die ganze Finsterniß vorüber ist.

Die sechste ist eine centrale Sonnenfinsterniß, den 16ten September, um 9 Uhr 27 Minuten Abends, hier unsichtbar, sie ist in einem grossen Theil von Asien sichtbar.

Der Anfang der vier Jahrszeiten.

Frühlings-Anfang, Sonnen Eintritt im Widder, den 20sten März, um 9 Uhr 31 Min. Abends.
Sommers-Anfang, Sonnen Eint. im Krebs, den 21sten Juny, um 6 Uhr 49 Min. Abends.
Herbsts-Anfang, Sonnen Eint. in der Waage, den 23sten Sept. um 8 Uhr 50 Min. Morgens.
Winters-Anfang, Sonnen Eint. im Steinbock, den 22sten Dec. um 2 Uhr 7 Min. Morgens.

Quatember-Tage.

Den 3ten März: Den 2ten Juny: Den 15ten September: Den 15ten December.

Erklärung der Zeichen in diesem Calender.

Die zwölf Himmlische Zeichen.	Die sieben Planeten.		Der Planeten Eigenschaften.
Widder	Saturnus (Samstag)	♄	♄ Saturn. kalt u. trocken
Stier	Jupiter (Donnerstag)	♃	♃ Jup. warm u. feucht.
Zwillinge	Mars (Dienstag)	♂	♂ Mars hizig u. trocken.
Krebs	Sonne (Sontag)	☉	☉ Sonne heiß u. trocken.
Löwe	Venus (Freytag)	♀	♀ Venus feucht u. warm.
Jungfrau	Mercurius (Mittw.)	☿	☿ Mercur warm, trocken.
Waage	Mond (Montag)	☽	☽ kalt, feucht u. allerley.
Scorpion	Die fünf Aspecten.		♅ Herschel vermutlich kalt
Schütz	Zusammenkunft	☌	feucht u. unbeständig.
Steinbock	Sextilschein	⚹	☽ Apog. der ☽ weit von
Wasserman	Gevierterschein	□	der Erde.
Fische	Gedritterschein	△	Perig. ☽ der Erde am
	Gegenschein	☍	nächsten.

Mondsviertel.	Verschiedene Merkzeichen.			
Neues Licht	Monds Aufsteigen	◡		
	Monds Absteigen	◠	Stunden	st.
Erstes Vier.	Drachen Haupt	☊	Minuten	m.
	Das Siebengestirn	7*	der	d.
Volles Licht	Gut Schröpfen	♋	und	u.
	Gut Aderlassen	⚸	geht auf	g. auf.
Leztes Viert.	Mittelmäßig Aderlassen	✠	geht unter	g. unt.
			südlich	süd.

☿ Mercur ist dieses Jahr der regierende Planet.

Bewegliche Feste.

Sextuagesimä den 7ten Februar.
Quinquagesimä den 21sten Februar.
Fastnacht den 23sten Februar.
Ascher-Mittwoch den 24sten Februar.
Palmsontag den 4ten April.
Das heilige Osterfest den 11ten April.
Himmelfahrtsfest den 20sten May.
Pfingstfest den 30sten May.
Fest Trinitatis den 6ten Juny.
1ster Advent Sontag den 28sten November.
Sontage nach Trinitatis sind 24.

Chronologische Merkzeichen der Zeitrechnung des Jahrs 1830.

Sonnen-Zirkel	19	Sontags-Buchstabe	
Güldene Zahl	7	Römer-Zinszahl	
Epacten sind	6	Julianische Periode	

Vom Aderlassen und Schröpfen.

Ob man schröpfen solle und wann die rechte Zeit sey, kann jeder selbst so leicht erachten man es ihm sagen kann: nämlich, wann es in der Haut jucket oder beisset, sonderlich wenn sende Bläterchen kommen, woraus gemeiniglich die bekannte Krätze folgt. Wenn man schr soll die Stube wohl warm seyn, denn wenn die Haut blos, dazu noch löcher drein gehauen und schlägt die Kälte drein so wirds eben so leicht schlimmer als besser; will es das erst nicht weichen, so kann man es zum zweyten oder dritten Mal wiederholen.

Aderlassen ist nützlich in Vollblütigkeit, Erstarrungen, Blutspeyen, Stick-Flüssen Da siehet man weder auf Zeichen Zeit, oder Stunde. Die sich aus Aderlassen gewöhnen von Natur viel Blut haben, lassen am füglichsten im abnehmenden Licht, wann Tag und N gleich sind, im May, oder wann die Rosen blühen. Man lässet nicht in Mangel des B nicht in bösen Fiebern oder Ohnmachten, nicht den Aufgedronsenen, auch nicht schwachen Leuten; nicht zu viel den Schwangern, noch in langwierigen Krankheiten; auch nicht viel das Blut hellroth läuft.

gut böß böß mittel. böß mittel. gut mittel. mittel. böß gut mitte

Widder regiert das Haurt, darinn ist gut Aderlassen aber nicht am Haurt.
Stier, den Hals und Gurgel.
Zwillinge, die Schultern, Aerme und Hände
Krebs, die Lunge, Milz und Magen.
Löwe, das Herz und Rücken.
Jungfrau, den Bauch und Gedärme.
Waage, die Nieren und Blase.
Scorpion, die Schaam
Schütz, die Hüften.
Steinbock, die Knie.
Wassermann, die Waden und Schienbeine.
Fische, die Füße.

Die Planeten beherr
♄ Das rechte Ohr, sie und Warzen
♃ Das linke Ohr, Leber und Irrp
♂ Das ganze H und Gall.
☉ Das Angesicht, nemlich die A und Zähne, Seiten, Schen
♀ Nieren und Geb glied, an Mann Frauen.
☿ Das Gedächtnis, nen, Gehirn, Schienbeine.
☽ Geburtsglied an M u. Frau, Gehirn, Magen, Bauch, gewerte, auch
♃ Leber u. (nebst Angesicht u. Aug

Ueber das ist zu erinnern, daß wer Aderlaßen will, es sey auf dem Arm, auf einer Hand Fuß, so muß das ganze Glied unfehlbar warm seyn; ist es aber kalt, so muß dasjenige, so lassen will, durch Arbeit, starkes gehen, oder durch heißes Trinken, das Geblüt erst erwär sonst läuft das Blut gar nicht, oder nur das dünneste, und ist eine solche Aderlässe oft schädlich als nützlich.

Was vom Blut nach dem Aderlaßen zu muthmaßen ist.

1. Schön roth Blut, mit Wasser oben bedeckt, bedeutet gute Gesundheit. 2. Roth und s migt, viel Geblüt. 3. Roth mit einem schwarzen Ring, Gicht. 4. Schwarz, schaumig enterig, böse Feuchtigkeit und kalte Flüsse. 5. Weiß Blut ist eine Anzeigung zäher, fe Verschleimungen. 6. Blau—Milzweh oder Melancholie. 7. Grün—Herzweh oder b Galle. 8. Gelb—Weh an der Leber und Gall. 9. Wassericht, bedeutet eine schwache oder überschwemmten Magen. 10. Dick, hart und zäyes Blut ist eine Anzeigung der Ve fung oder Melancholie.

Figure 4. Two Pages from Egelmann's Anti-Masonic Almanac of 1830.

mann did the calculations. Only almanacs with his name appearing on them, those listed by Drake[3] or those in the files of the American Antiquarian Society were considered. Many other almanac issues or titles credited to him were not included for various reasons.[4] Omitted are those issues which are no longer extant or were not located by this writer. Others were omitted because many almanacs do not include the name of the calculator, even when Egelmann's name appeared on other issues or editions. An examination of the statistics of the almanacs shows that this underestimation effect is strong. Of the seventy-six different almanac names, thirty-four have exactly one year of issue listed. Five of these titles are included only because this writer stumbled across the 1852 issue of the *Stadt und Land Calender* which had an advertisement for five other 1852 almanacs *(Comic Almanac, Haushaltungs Calender, Illustrirte Calender, Poultry Breeders Almanac* and *Uncle Sam's Almanac.)* When one considers these omissions and the mentioned simplifications it can be seen that Egelmann probably made calculations appearing in thousands of almanac issues. Assuming that, it qualifies him for being the most prolific almanac calculator in the world.

General Analysis of Almanacs

Twenty-eight of the seventy-six almanacs appeared in the German language. From 1823-1861 his computations appeared on the average in twelve different almanacs, reaching a peak of twenty in 1840.

[3]M. Drake, *Almanacs of the United States* (New York, 1962).

[4]Some entries in the file cards of the Historical Society of Pennsylvania crediting Egelmann with the calculations were not to be found or included almanacs without Egelmann's name appearing on them. Most entries in the *National Union Catalogue: Pre-1956 Imprints* just refer to an almanac title.

Der erste Monat, Januarius, oder Jenner, hat 31 Tage.

Wochen Tage.	Merkwürdige Tage.	H. B.	Monds A. u. U.	Mond Zeichen	Monds s. Aspecten der Planeten u. Witterung.	Sonnen Auf- u. Untergang.
Freyt	1 Neujahr	8	morg.	♑ 6	1 ☿ g. unt. 8,30	7 23 4 37
samst	2 Abel, Seth	8	12 7	♑ 20	♄ süd 2,30	7 23 4 37
1.) Sontag nach Neujahr.					Von der Taufe Jesu Christi. Matth. 3.	Tagesl. 9St. 14m.
Sont	3 Enoch	9	1 16	♒ 4	7* süd. hell, kalt	7 23 4 37
mont	4 Methuselah	10	2 21	♒ 18	Sirius süd 11,37	7 22 4 38
dienst	5 Simeon	11	3 28	♓ 2	♃ im ♒	7 22 4 38
mitw	6 H. 3 Könige	12	4 32	♓ 16	♄ süd 2,7	7 21 4 39
donn	7 Isidorus	1	5 32	♓ 29	☿ geht unter 8,33	7 21 4 39
freyt	8 Erhardus	1	g. auf	♈ 12	den 8ten	7 20 4 40
samst	9 Julianus	2	5 37	♈ 25	☉ ♆	7 20 4 40
2.) 1. Sont. nach Epiph.					Da Jesus 12 Jahre alt war. Luc. 2.	Tagesl. 9St. 22m.
Sont	10 Pauli Eins.	3	6 35	♉ 8	Orion süd 10,20	7 19 4 41
mont	11 Hyginius	4	7 35	♉ 21	♂ im ♉	7 19 4 41
dienst	12 Reinhold	5	8 32	♊ 3	Arctur g. auf 11,22	7 18 4 42
mitw	13 Hilarius	5	9 27	♊ 15	☊ ☿ g. unter 8,35	7 17 4 43
donn	14 Felix	6	10 23	♊ 27	♄ süd 1,32	7 17 4 43
freyt	15 Maurus	7	11 18	♋ 9	☽ in apogee	7 16 4 44
samst	16 Marcellus	7	morg.	♋ 21	den 16ten	7 15 4 45
3.) 2. Sont. nach Epiph.					Von der Hochzeit zu Cana. Joh. 2.	Tagesl. 9St. 32m.
Sont	17 Antonius	8	12 14	♌ 3	Sirius süd 10,41	7 14 4 46
mont	18 Prisca	9	1 10	♌ 15	Orion süd 9,46	7 13 4 47
dienst	19 Sara	10	2 7	♌ 27	☿ geht unter 8,34	7 12 4 48
mitw	20 Fabian Seb.	10	3 4	♍ 10	☉ trit im ♍	7 12 4 48
donn	21 Agnes	11	4 2	♍ 23	♂ ☽ ♃ kalt	7 11 4 49
freyt	22 Vincentia	12	5 0	♎ 6	♃ ♎ Auge süd 8,9	7 10 4 50
samst	23 Emerentius	1	5 53	♎ 20	7* süd 7,19	7 9 4 51
4.) 3. Sont. n. Epiph.					Vom Hauptmann zu Capernaum. Matth. 8.	Tagesl. 9St. 45m.
Sont	24 Timotheus	2	g. unt.	♏ 5	den 24sten	7 8 4 52
mont	25 Pauli Bek.	3	6 22	♏ 19	☿ g unter 8,31	7 7 4 53
dienst	26 Policarpus	4	7 31	♐ 3	♂ ♅ ☉. ♄ süd 12,36	7 6 4 54
mitw	27 F. Chrisostum	4	8 40	♐ 18	☽ in per. ♂ ☽ ☿. ☊	7 5 4 55
donn	28 Carolus	5	9 50	♑ 2	Sirius süd 9,55	7 4 4 56
freyt	29 Valerius	6	10 56	♑ 17	Arctur g. auf 10,10	7 3 4 57
samst	30 Adelgunda	7	morg.	♑ 1	Orion süd 8,56	7 2 4 58
5.) 4. Sont. nach Epiph.					Vom ungestümen Meer. Matth. 8.	Tagesl. 9St. 58m.
Sont	31 Virgilius	8	12 3	♑ 15	☽ den 31sten ☉ ♆	7 1 4 59

Monds Viertel, mit ihren muthmaßlichen Witterungen.

Das erste Viertel ist den 1sten, um 9 Uhr 33 Min. Abends: veränderlich mit Schnee.
Der Vollmond ist den 8ten, um 10 Uhr 31 Min. Abends: trüb, mit Regen und Schnee.
Das letzte Viertel ist den 16ten, um 11 Uhr 2 Min. Abends: bringt kaltes Wetter.
Der Neumond ist den 24sten, um 11 Uhr 53 Min. Abends: veränderlich trübe.
Das erste Viertel ist den 31sten, um 5 Uhr 46 Min. Morgens: helle und kalt.

Muthmaßliche Witterung für jeden Tag.

Den 1sten trüb; 2 bis 5 kalt, hell; 6 bis 8 trüb mit Regen und Schnee; 9, 10, 11 hell und kalt; 12, 13, 14 veränderlich; 15, 16 trüb, 17 bis 21 kalt; 22, 23 veränderlich; 24 Schnee; 25, 26, 27 trüb; 28 veränderlich; 29, 30, 31 kalt.

Page of 1830 Anti-Masonic Almanac with Calculations.

One of the interesting aspects of Egelmann's almanacs is the two dozen variations in the form of his name. The names Carl, Friederich and Egelman(n) were found on nearly all German and earlier English language almanacs. Charles and Eagelman(n) tended to be found on English language almanacs after the later 1840's. The earliest use of Eagleman(n) was found in the 1847 issue of the *Farmer's Calender* when an M.A. first appeared after his name on almanacs. His signature appears as Carl Friederich Egelmann (see Figure 2) in the 1821 and 1831 editions of his *Deutsche-Englische Vorschriften fur die Jugend*[5] and as Charles F. Egelman on a receipt[6] dated 1837.

An analysis of the places of publication of the almanacs indicates that Egelmann probably became widely recognized somewhere between 1828 and 1830. After this period the vast majority of almanacs were printed in Baltimore, Canton, Hagerstown, Philadelphia, and Reading. Before this period his almanacs tended to be printed in Pennsylvania's interior at Germantown, Hagerstown, Reading, and Schellsburg. Some of his almanacs were printed in Cincinnati, Easton, Harrisburg, Lancaster, Orwigsburg, Pittsburgh, and Richmond. He appears to have been financially successful with his almanac work since he eventually had three buildings erected in Reading.

Through much of Egelmann's career as an almanac contributor he resided at various places in or near Reading. After starting in the residence below the Spies Church his addresses were as follows:[7] 418 Penn Square, the boulevard near the spring in the Egelman Reservoir area, 145 N. 5th Street, below the church again, and finally in 1842 the northwest corner of 9th and Penn Streets. Nolan[8] indicates that one of the residences was called Rosenthal. Some information is avaliable as to when these moves were made. On a map dated 1825 and on a certificate circa 1840-1850, engraved by Egelmann, he indicated that he lived at Pennsmount. It is also known that Egelman sold his residence below the church in 1812. Further, in the 1823-1834 *Neue Readinger Calender* he writes after his name *"ohnweit Reading"*; 1835-1839, "in Reading"; 1840 *"bey* Reading"; 1841-1862, just "Reading". In the 1839 *Pennsylvanische Anti-Freymaurer Calender,* it was *"Nahe bei* Reading".

General Almanac Contents

The general content and use of almanacs like those for which Egelmann made calculations has been discussed in Article I of this series.

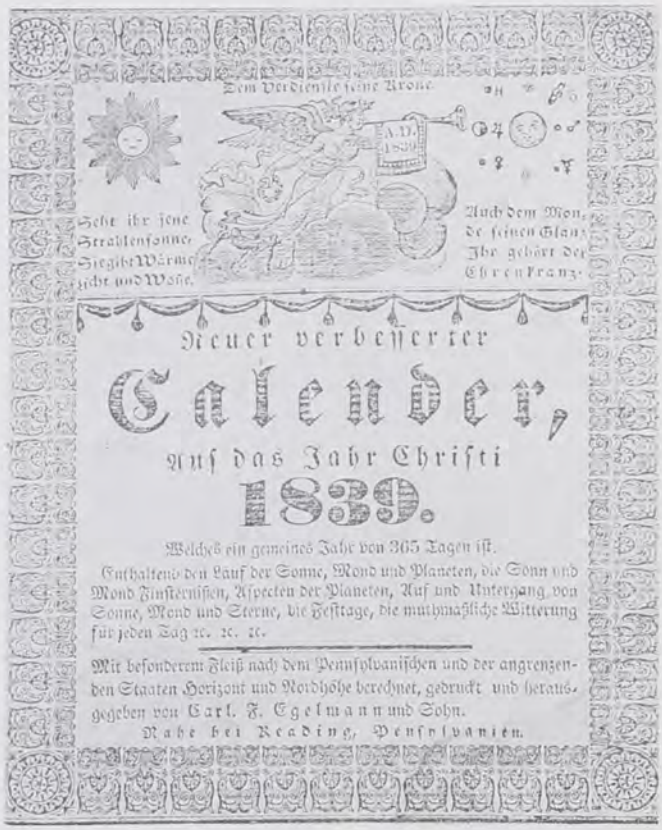
One of the relatively unexplained aspects of almanac calculating in early America is the precise method for tabulating entries. Before a calculator can make his entries he must first have mathematical tables which describe the orbits of the earth, moon, and planets in space. With these tables he can then compute ephemerides for a given geographic site. In the early part of the 19th Century the government publication, *United States Almanac or Complete Ephemeris,* indicated that the orbital tables they used were found in the *British Nautical Almanac.* Before the late 1840's it would have been natural for American common almanac calculators to use the *British Nautical Almanac* too. After this time it would have been more natural to use the similar American orbital tables found in the *American Ephemeris and Nautical Almanac* which was first computed for the year 1849.

[5]Both editions were published in Reading, the latter in somewhat more expanded form.

[6]Shelley, *op. cit.*, p. 162.

[7]Information listed in the Egelmann family bible by E. E. Hafer, a "grandson".

[8]A letter in the possession of the American Antiquarian Society dated January 9, 1954, from J. Bennett Nolan to Clarence S. Brigham.


Dem Verdienste seine Krone.

Seht ihr jene Strahlensonne, Siegibt Wärme, Licht und Wonne.

Auch dem Mon, de seinen Glanz Ihr gehört der Ehrenkranz.

Neuer verbesserter

Calender,

Auf das Jahr Christi

1839.

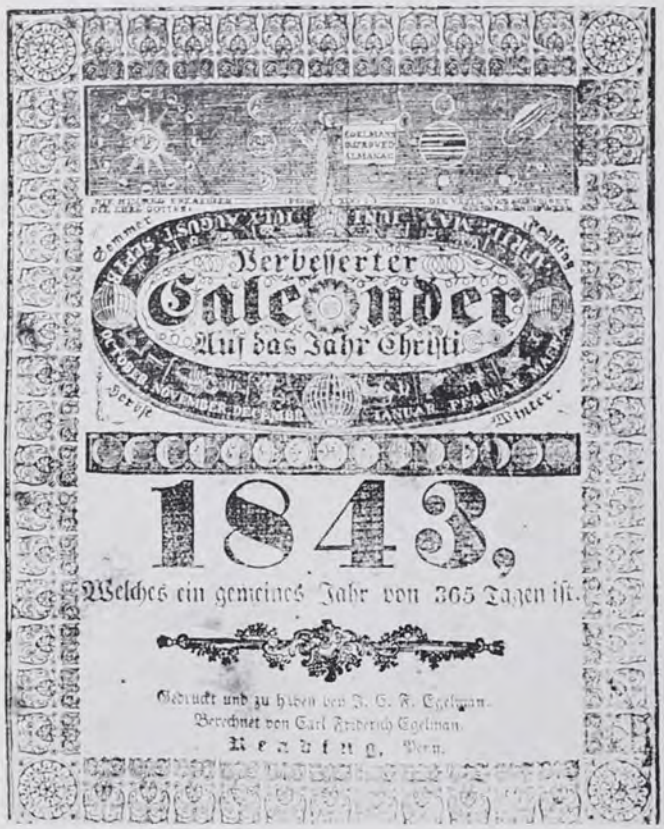
Welches ein gemeines Jahr von 365 Tagen ist.

Enthaltend den Lauf der Sonne, Mond und Planeten, die Sonn und Mond Finsternissen, Aspecten der Planeten, Auf und Untergang, von Sonne, Mond und Sterne, die Festtage, die muthmaßliche Witterung für jeden Tag ꝛc. ꝛc. ꝛc.

Mit besonderem Fleiß nach dem Pennsylvanischen und der angrenzenden Staaten Horizont und Nordhöhe berechnet, gedruckt und herausgegeben von Carl. F. Egelmann und Sohn.

Nahe bei Reading, Pensylvanien.

Figure 5. Cover of the Neuer Verbesserter Calender *(1839).*


Verbesserter

Calender

Auf das Jahr Christi

1843.

Welches ein gemeines Jahr von 365 Tagen ist.

Gedruckt und zu haben bei J. C. F. Egelman.

Berechnet von Carl Friderich Egelman.

Reading, Penn.

Figure 6. Cover of the Verbesserter Calender *(1843).*

Related to Egelmann's calculations is a broadside of his "Universal Perpetual Calendar," shown in Figure 3. The calendar is an extraction of some of the computations found in almanacs from 1770-1994. Entries include day of the month, Easter Sundays, new moons, and times of sunrise and sunset. These broadsides may have been used by frugal persons interested in some of the most basic features of an almanac but who did not wish to purchase a new almanac each year.

Noteworthy Efforts

Egelmann's first almanac was the 1830 *Pennsylvanische Anti-Freymaurer Calender,* printed for him by Johann Christian of Reading. It is a noteworthy almanac since it contains a lengthy section castigating the Free-Masons, and revealing their secret grips, signs and words. His almanac also appeared in 1832, 1833 and 1838 when it was printed by Samuel Wagner in Lancaster. It is interesting to note that the 1830 issue is the only one which was not of the German style. Pages from this almanac are shown in Figures 4 and 5. The calculations appearing here are somewhat condensed compared to the German style.

After serving as associate editor of the *Readinger Democrat,* he edited, and with one of his sons printed the *Berks County Adler* from 1834-1838. During this period he was also organist for the Trinity Lutheran Church. In 1839, one year after the last issue of the *Pennsylvanische Anti-Freymaurer Calender,* Egelmann's first self-published almanac appeared under the name *Neuer Verbesserter Calender.* This and the 1842-1847 *Verbesserter Calender* were published in cooperation with one of his sons. On the last four issues the father took credit for the computing and the son the printing. These almanacs were the only ones in which the word *Verbesserter* appeared in the title. The word implies that some "improved" tables of orbits were used for computation. Their publications were interesting too because of the varied covers utilizing an angel and trumpet, oval, and various illuminations some of which are shown in Figures 6 and 7. The 1842-1845 issues are found in two varieties, the difference being shown in Figures 7 and 8 for 1845.

An examination of the covers of the almanacs published by Egelmann starting with 1843 reveals information about one of his sons. The son's name was listed as J.C.F. Egelmann in the 1843 and 1845-1847 issues and I.C.F. Egelmann in 1844. This son was known as C. Ferdinand Eaglemann[9] or J. C. Ferdinand Egelmann (1811-1894).[10]

Egelmann's greatest single engraving effort of astronomical figures was used to illustrate E. L. Walz's astron-

[9]Montgomery, *op. cit.,* 1906.
[10]Shoemaker, *op. cit.*

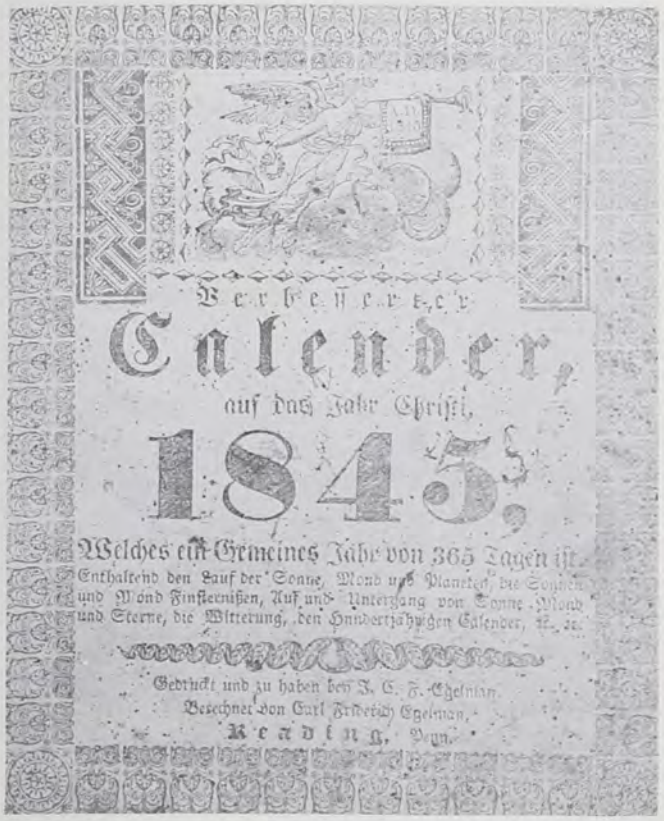

Verbesserter
Calender,
auf das Jahr Christi,
1845,
Welches ein Gemeines Jahr von 365 Tagen ist.
Enthaltend den Lauf der Sonne, Mond und Planeten, die Sonnen- und Mond Finsternißen, Auf und Untergang von Sonne, Mond und Sterne, die Witterung, den Hundertjährigen Calender, ꝛc. ꝛc.
Gedruckt und zu haben bey J. C. F. Egelman.
Berechnet von Carl Friderich Egelman.
Reading, Penn.

Figure 7. Cover of the Verbesserter Calender *(1845).*

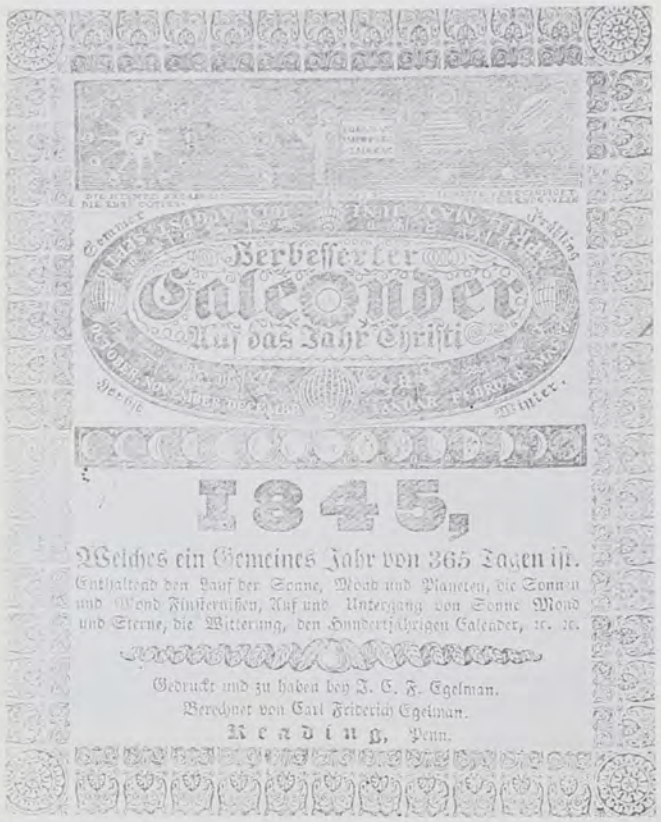

Verbesserter
Calender
Auf das Jahr Christi
1845,
Welches ein Gemeines Jahr von 365 Tagen ist.
Enthaltend den Lauf der Sonne, Mond und Planeten, die Sonnen- und Mond Finsternißen, Auf und Untergang von Sonne Mond und Sterne, die Witterung, den Hundertjährigen Calender, ꝛc. ꝛc.
Gedruckt und zu haben bey J. C. F. Egelman.
Berechnet von Carl Friderich Egelman.
Reading, Penn.

Figure 8. Cover of the Verbesserter Calender *(1845), Second Variety.*

omy text[11] of 1830. It appears that this text inspired Egelmann since the 1832 *Neue Readinger Calender* and the 1833 *Pennsylvanische Anti-Freymaurer Calender* contain his most scholarly astronomical articles and a poem. Both the text and 1832 almanac were printed by John Ritter of Reading. Further, Egelmann refers to Walz's book in his 1832 almanac article.

L. J. Ibach[12] (1816-1888) was a Reading blacksmith whose relationship with Egelmann was so extensive that he learned the science and art of almanac calculating from Egelmann. When Egelmann died on November 30, 1860, Ibach became the principal purchaser of Eglemann's books, charts and unfinished calculations. Both Egelmann's and Ibach's calculations appeared as late as 1863 in the *Hägerstauner Calender.* Ibach was very proud to carry on Egelmann's tradition of almanac calculating. In a number of issues of the *Agricultural Almanac* he stated:

> "Calculated by Lawrence J. Ibach successor to Charles F. Egelmann—All almanacs without the name of the calculator are suspicious"

Every year from 1862 to 1888, when Ibach died, he indicated in the *Neuer Gemeinnütziger Pennsylvanischer Calender* that he was Egelmann's successor.

Although little is known about Egelmann's wife she apparently was able to make some almanac calculations. She is given credit for completing the work of the 1862 *Neuer Gemeinnütziger Pennsylvanischer Calender.*

Henry Frost and Edward Hagerty may have helped Egelmann with the calculations for some issues of the *Farmer's Calender and Farmer's Almanac,*[13] respectively. Both Frost and Hagerty were also almanac calculators.

Descriptive Contributions

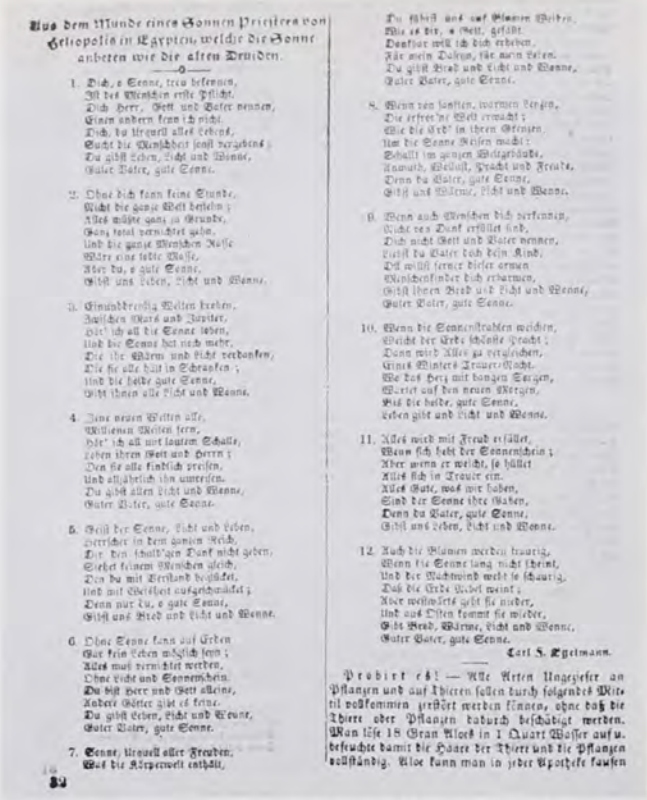
Among the 500 almanac issues by Egelmann about three dozen contain astronomical poems, articles, and notes. Since half of this material does not specifically have Egelmann's name associated with it his authorship is questionable.

Five poems which are associated with his name are found in the 1823, 1834, 1857 and 1859 *Neue Readinger Calender* and the 1833 *Pennsylvanische Anti-Freymaurer Calender.* Each is of moderate length and deals with astronomical topics. An example of his style from the 1857 *Neue Readinger Calender* is shown in Figure 9. While his last article appeared in 1839 he wrote poetry until 1859, the year before his death. A

[11]*Vollstandige Erklarung des Calenders, mit einem fasslichen Unterricht uber die Himmelskorper, insbesondere uber die Sonne und der sich um die bewegenden Planeten* (Reading, 1830). A discussion of this text is found in Article I of this series.

[12]Ibach's biography is given by Gerhard, *op. cit.*

[13]File cards at the Historical Society of Pennsylvania indicate this. Unfortunately this writer can not verify it.



Aus dem Munde eines Sonnen Priesters von Heliopolis in Egypten, welcher die Sonne anbeten wie die alten Druiden.

1. Dich, o Sonne, treu bekennen,
Ist des Menschen erste Pflicht.
Dich Herr, Gott und Vater nennen,
Einen andern kenn ich nicht.
Dich, du Urquell aller Lebens,
Sucht die Menschheit fast vergebens;
Du gibst Leben, Licht und Wonne,
Guter Vater, gute Sonne.

2. Ohne dich kann keine Stunde,
Nicht die ganze Welt bestehen;
Alles müßte ganz zu Grunde,
Ganz total vernichtet gehn,
Und die ganze Menschen Rasse
Wäre eine todte Masse,
Aber du, o gute Sonne,
Gibst uns Leben, Licht und Wonne.

3. Einundvierzig Welten kreisen,
Zwischen Mars und Jupiter,
Hier' ich all die Sonne loben,
Und die Sonne hat noch mehr;
Die ihr Wärm und Licht verdanken,
Die sie alle hält in Schranken;
Und die holde gute Sonne,
Gibt ihnen alle Licht und Wonne.

4. Zum neuen Welten alle,
Millionen Meilen fern,
Hör' ich all mit lautem Schalle,
Loben ihren Gott und Herrn;
Den sie alle kindlich preisen,
Und allstündlich ihn umreisen.
Du gibst allen Licht und Wonne,
Guter Vater, gute Sonne.

5. Geist der Sonne, Licht und Leben,
Herrschet in dem ganzen Reich,
Für den schuldigen Dank nicht geben,
Siehet keinem Menschen gleich,
Den du mit Verstand beglückest,
Und mit Weisheit ausgeschmückest;
Denn nur du, o gute Sonne,
Gibst uns Brod und Licht und Wonne.

6. Ohne Sonne kann auf Erden
Gar kein Leben möglich seyn;
Alles muß vernichtet werden,
Ohne Licht und Sonnenschein.
Du bist Herr und Gott alleine,
Andere Götter gibt es keine.
Du gibst Leben, Licht und Wonne,
Guter Vater, gute Sonne.

7. Sonne, Urquell aller Freuden,
Was die Körperwelt enthält,
Du gibst auch auf Pflanzen Weiden,
Wie es dir, o Gott, gefällt.
Dankbar will ich dich erheben,
Für mein Dasseyn, für mein Leben.
Du gibst Brod und Licht und Wonne,
Guter Vater, gute Sonne.

8. Wenn von kalten, warmen Zonen,
Die erfreu'te Welt erwacht;
Wie die Erd' in ihren Grenzen,
Um die Sonne Reisen macht:
Schallt im ganzen Weltgebäude,
Anmuth, Wollust, Pracht und Freude,
Denn du Vater, gute Sonne,
Gibst uns Wärme, Licht und Wonne.

9. Wenn auch Menschen dich verkennen,
Nicht von Dank erfüllet sind,
Dich nicht Gott und Vater nennen,
Gibst du Vater doch kein Kind;
Du willst ferner dieser armen
Menschenkinder dich erbarmen,
Gibst ihnen Brod und Licht und Wonne,
Guter Vater, gute Sonne.

10. Wenn die Sonnenstrahlen weichen,
Weicht der Erde schöne Pracht;
Dann wird Alles zu erreichen,
Eines Winters Trauer-Nacht.
Wie das Herz mit bangen Sorgen,
Harret auf den neuen Morgen,
Bis die holde, gute Sonne,
Leben gibt und Licht und Wonne.

11. Alles wird mit Freud erfüllet,
Wenn sich hebt der Sonnenschein;
Aber wenn er weicht, so hüllet
Alles sich in Trauer ein.
Alles Gute, was wir haben,
Sind der Sonne ihre Gaben,
Denn du Vater, gute Sonne,
Gibst uns Leben, Licht und Wonne.

12. Auch die Blumen werden traurig,
Wenn die Sonne lang nicht scheint,
Und der Nachtwind weht so schaurig,
Daß die Erde Nebel weint;
Aber wetterwärts geht sie nieder,
Und aus Osten kommt sie wieder,
Gibt Brod, Wärme, Licht und Wonne,
Guter Vater, gute Sonne.

Carl S. Egelmann.

Probiert es! — Alle Arten Ungeziefer an Pflanzen und auf Thieren sollen durch folgendes Mittel vollkommen vertilgt werden können, ohne daß die Thiere oder Pflanzen dadurch beschädigt werden. Man löse 18 Gran Aloes in 1 Quart Wasser auf u. befeuchte damit die Haare der Thiere und die Pflanzen vollständig. Aloe kann man in jeder Apotheke kaufen

Figure 9. Poem from 1857 Neuer Readinger Calender.

sample of his poetry in English appearing in his copy book is show in Figure 2.

The article in 1832 *Neue Readinger Calender* is his most comprehensive astronomical contribution. He discusses the solar system, eclipses, comets and stars as they were understood then. A portion of this article is reproduced in Figure 10. The article in the 1833 *Pennsylvanische Anti-Freymaurer Calender* is about comets and is of unprecedented length for him and perhaps, for any other almanac contribution as far as astronomical articles are concerned. A small portion of it is presented in Figure 11. While the article is generally of a scholarly nature he introduces a hypothetical "negative gravitational force" to explain the formation and configuration of comet tails.[14] In this article he also makes his view of astrology fairly clear because he derogatorily refers to "astrologers and idiots".

The two articles appearing in the 1839 *Neue Verbesserter Calender* are of interest. His first article (partially reproduced in Figure 12) is a detailed explanation of almanac entries like those of Figure 5. It is noteworthy since it is the only known detailed explanation by him and one of the very few explanations ever appearing in almanacs in general.[15] Explanations were not needed because many people probably understood the nature of almanac calculations. Egelmann chose to give this explanation in his first self published almanac. His second article (partially reproduced in Figure 13) on the weather is revealing. He not only exaggerates the accuracy with which weather can be predicted but states that the weather is influenced by the heavenly bodies. Since he is probably referring to the bodies in addition to the sun, it indicates that he believes in some astrology. However since Egelmann never fixed his name to any other types of astrology commonly found in almanacs it is likely that he separated out his weather astrology from the rest and didn't think that he was a believer in astrology. In any event Brendle and Unger[16] think that Egelmann's weather predictions were astrology and that their basis was computations. It is likely that Egelmann used previous weather statistics to make his predictions, but it is unlikely that he used any computations.

The 1860 *Neue Readinger Calender* and *Columbia Almanac* have a curious apology by him regarding an error he made in deducing the size of the moon. In the 1859 *Neue Readinger Calender* he argues the moon is really only 266 miles in diameter rather than 2180 miles which was the value accepted by the astronomical world then and now! (see Figure 14) In the 1860 *Neue Readinger Calender and Columbia Almanac* he "corrects" this and then says the moon's diameter is larger, it is 314 miles! (see Figure 15) Since Egelmann died in 1860 during his 79th year it is suggestive that

[14]This explanation of tails preceded our accepted one, by more than a century.

[15]The 1823 *Neue Readinger Calender* has a general explanation.

[16]*Neue Readinger Calender* (1823).

Sternkunde — (Astronomie.)

Das Sonnensystem.

⊙ Die Sonne,

♀ Merkur,

♀ Venus,

Figure 10. Portion of article from 1832 Neuer Readinger Calender.

his mathematical blunders in the 1859 and 1860 *Neue Readinger Calender* were caused by a lingering mortal illness.

Stipple Frakturs

All of Egelmann's Frakturs are of the stipple type, that is, made with engraved copper plates rather than

Bemerkungen

über

Cometen.

(Mit einer Abbildung.)

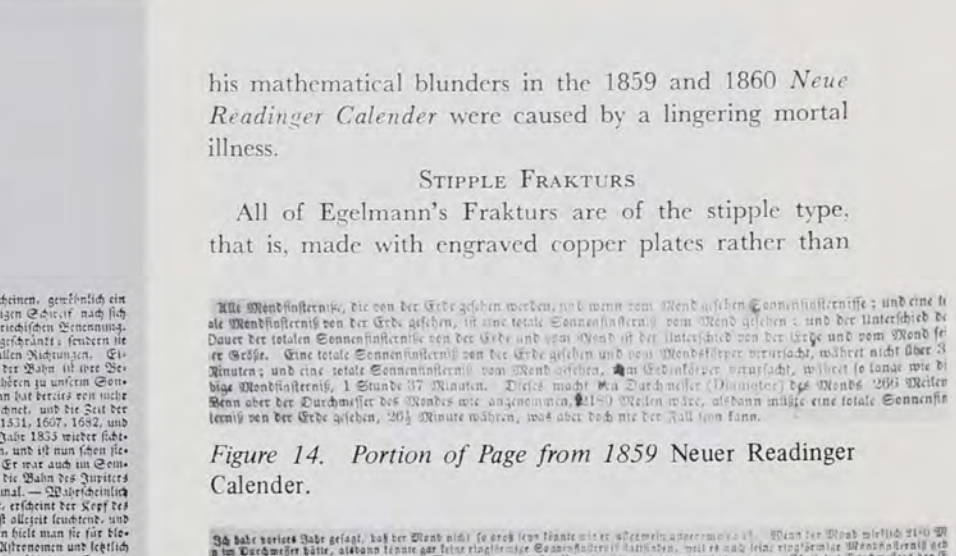
Cometen (Haarsterne). So heißen Sterne, welche uns nur zu gewissen Zeiten erscheinen, gewöhnlich ein schwaches Licht zeigen, in eine Art von Nebel eingehüllt sind, und meistens einen langen nebeligen Schweif nach sich ziehen, der jedesmal von der Sonne abgekehrt ist. Dieser Schweif gab Veranlassung zu der griechischen Benennung. Die Cometenbahnen sind nicht, gleich den Planetenbahnen, auf die Grenzen des Thierkreises eingeschränkt; sondern sie durchschneiden vielmehr die Ebenen der Planetenbahnen unter allen Neigungen und nach allen Richtungen. Ihre Bewegung sehr langsam; in der Nähe der Sonne aber wird sie über alle Begriffe schnell. Sie gehören zu unserm Sonnensystem, und bewegen sich zum Theil in sehr langen excentrischen Ellipsen um die Sonne. Man hat bereits von mehr als siebzig Cometen die wahren Bahnen um die Sonne mit den dazu gehörigen Elementen berechnet, und die Zeit der Wiederkunft mehrerer dieser Cometen lange Jahre vorher bestimmt. Die Cometen von 1456, 1531, 1607, 1682, und 1759, sind, zum Beispiel, ein und derselbe, der seine laufbahn in 76 Jahren zurücklegt, und im Jahre 1835 wieder sichtbar seyn wird. Der Enteche Comet vollendet seinen Umlauf um die Sonne in etwa 3½ Jahren, und ist nun schon siebenmal, 1786, 1795, 1801, 1805, 1818, 1825, 1828, von den Astronomen beobachtet worden. Er war auch im Sommer 1832, während seiner Rückkehr von der Sonne, in Süd-Amerika sichtbar. Er hat nie die Bahn des Jupiters überschritten, und durchkreuzt in einem Jahrhundert unsere Erdbahn nicht weniger als sechzigmal. — Wahrscheinlich sind viele Cometen schon erschienen, ohne bemerkt worden zu seyn. Durch Fernröhre beobachtet, erscheint der Kopf des Cometen als ein dichter Kern, der um sich her einen nebeligen Dunstkreis hat. Der Schweif ist allezeit leuchtend, und so dünn, daß man die dahinter befindlichen Fixsterne durch ihn sehen kann. In den ältern Zeiten hielt man sie für bloße Lufterscheinungen; erst mit Tycho de Brahe, und vorzüglich seit Newton, dessen durch spätere Astronomen und letztlich durch Laplace bis zur Vollkommenheit ausgebildete Theorie des Cometenlaufs durch alle seitdem erschienenen Cometen bestätigt worden ist, hat man sie für feste Körper angesehen. Auch hat die neuere Theorie dieser Himmelskörper jeden gegründeten Anlaß zur Furcht entfernt, irgend ein Comet könnte sich einstmals der Erde so nähern, daß er sie aus ihrer Bahn schleudere, ihr den Mond raube, oder sonstiges Unheil der Art verursache.

Ein hundert und vierzig Cometen sind im vorigen Jahrhundert auf der Erde sichtbar gewesen, von welchen keiner zum zweiten Male erschienen ist. Wenn man ein tausend Jahre annimmt, als die im Durchschnitt erforderte Zeit ihres Umlaufs um die Sonne, so ist es demnach möglich, daß sich 1400 innerhalb des Raumes der Erdbahn befinden. Da aber der Planet Uranus zwanzig Mal weiter als die Erde von der Sonne entfernt ist, so kann die ungeheure Zahl von 11,200,000 Cometen innerhalb den Grenzen unsers Sonnensystems ihren Umlauf haben. Erstaunend groß als die Anzahl dieser Körper nach solchen muthmaaßlichen Berechnungen scheinen mag, ist sie dennoch gering im Verhältniß zur Menge der Fixsterne; denn Dr. Herschel schätzte die Anzahl dieser letztern, die in einem Zeitraum von nur funfzehn Minuten im Gesichtskreis seines Fernrohrs vorübergingen, auf 116,000!

Das erste, wodurch sich die Cometen auffallend vor allen übrigen Körpern des Himmels auszeichnen, ist ihre [illegible] Größe. Während jene ganz Ausnahme eine kugelförmige Form haben, erscheinen diese gewöhnlich [illegible]

A. 2.

Figure 11. Portion of Article from 1833 Anti-Masonic Almanac.



Alle Mondfinsternisse, die von der Erde gesehen werden, und wenn vom Mond gesehen Sonnenfinsternisse; und eine [illegible] ale Mondfinsternis von der Erde gesehen, ist eine totale Sonnenfinsternis vom Mond gesehen; und der Unterschied d[illegible] Dauer der totalen Sonnenfinsternis von der Erde und vom Mond ist der Unterschied von der Erde und vom Mond fe[illegible] er Größe. Eine totale Sonnenfinsternis von der Erde gesehen und vom Mondskörper verursacht, währet nicht über 3 Minuten; und eine totale Sonnenfinsternis vom Mond gesehen, vom Erdkörper verursacht, währet so lange wie di[illegible] diese Mondfinsternis, 1 Stunde 37 Minuten. Dieses macht den Durchmesser (Diameter) des Monds 2661 Meilen [illegible] Wenn aber der Durchmesser des Mondes wie angenommen, 2180 Meilen wäre, alsdann müßte eine totale Sonnenfin[illegible] ternis von der Erde gesehen, 26½ Minute währen, was aber doch nie der Fall seyn kann.

Ich habe voriges Jahr gesagt, daß der Mond nicht so groß seyn könne wie er allgemein angenommen ist. Wenn der Mond wirklich 2180 M[illegible] n im Durchmesser hätte, alsdann könnte gar keine ringförmige Sonnenfinsternis stattfinden, weil es nach seiner ringförmigen Mondsfinsternis geh[illegible] aus, da die Erde nach der Entfernung vom Mond zu groß ist. Und ein Körper der mehr als den vierten Theil des Durchmessers der E[illegible] Erde, wäre auch zu groß, um eine ringförmige Sonnenfinsternis bilden zu können, denn der Schatten eines so großen Körpers könnte nicht [illegible] spitze kommen, ehe es die Erde erreichte. Eine totale Sonnenfinsternis vom Mond gesehen, währet erst so lange wie eine totale Mondfi[illegible] ist von der Erde gesehen. Der Unterschied der Größe und Dauer kommt allein von dem Unterschied der Größe der Erde und Monds her. We[illegible] um der Mond so groß wäre wie die Erde, alsdann müßte der Schatten des Monds auf der Erde so groß seyn wie der Schatten der Erde a[illegible] vom Mond, und auch so lange dauern. Hat nun der Mond ein viertheil so groß wäre wie die Erde, alsdann müßte auch der Schatten des Me[illegible] es auf der Erde ein viertheil so groß seyn und ein viertheil so lange dauern. Der 4te Theil des Durchmessers der Erde ist 1991 Meilen; u[illegible] er vierte Theil der Dauer der totalen Mondsfinsternis vom vorigen Jahr ist 24½ Minuten; da es aber nach nie eine totale Sonnenfinsternis auf [illegible] Erde gegeben, auch nie eine solche geben kann, die 24½ Minuten währet, welches wenn der Mond ein viertheil so groß wie die Erde wä[illegible] nach der Fall seyn müßte; und doch wird der Mond für noch größer als der vierte Theil der Erde gehalten. — R. B. Zu der Dauer der total[illegible] Finsternissen von Sonne und Mond kann die Breite des Mondes gerechnet werden. Wie die längste Dauer der totalen Mondsfinsternis zu d[illegible] Durchmesser der Erde ist, so ist die längste Dauer der totalen Sonnenfinsternis zu dem Durchmesser des Mondes. Die längste Dauer der total[illegible] Mondsfinsternis ist 1 Stunde 44 Minuten. Und die längste Dauer von totalen Sonnenfinsternissen, die es geben kann, was die jetzigen Astronom[illegible] nach genauer und accurater Beobachtung gefunden, ist 4 Minuten 6 Secunden. Dieses macht den Durchmesser des Mondes beynahe 314 Meile[illegible]

Wie 1 St. 44 M. : 7964 M. : : 1 M. 6 Sec. : $313\frac{100}{104} = \frac{25}{26}$

7964 Meilen ist der Durchmesser der Erde; und 314 der Durchmesser des Mondes.—Carl F. Egelmann.

Figure 14. Portion of Page from 1859 Neuer Readinger Calender.

oder Erntemonat, hat 31 Tage.

Monds-Viertel.

Letztes Viertel ist den 4ten, 12 Uhr 13 min. Morgens; Schauers.

Neumond ist den 10ten, 6 Uhr 0 min. Abends, Gewitter.

Erstes Viertel ist den 18ten, 10 Uhr 1 min. Vormittags; helle.

Vollmond ist den 26sten, 11 Uhr 25 min. Vormittags; trüb mit Regen.

Sonnen Eintritt im Löwen, den 23sten July.

Kinder im July, oder Löwe, geboren lieben die Gerechtigkeit und die Wahrheit, hassen alle Heuchelen, sind standhaftig im Streit, und schadet ihnen nicht leicht eine Krankheit. Sie sind verständig verträglich und arbeiten gern.

Unschuld, ihre Unwissenheit — Kurz, Wilhelm, ich überlasse deiner Einsicht, was dir zu thun gebührt. — Nicht ihren Besitz zu entsagen, ihn zu verdienen, rath ich dir; so wie ich dir nicht jede Feyer meines Todes, nur Uebermaas in ihr verbiete. Leb wohl! (sie verschwindet)

Wilh. L — Sie ist dahin; Sonder Spur dahin, außer der in meiner Brust! — [nach einer Pause] Nicht jede Feyer, aber Uebermaas? — Karolinens Unschuld und Unwissenheit? Ihr nicht entsagen, aber sie verdienen? — O seliger Geist, ich hoffe dich zu verstehen und ich folge dir. — [Pause] Adolph! Adolph!

Ad. [auffahrend] Hier! Was giebts hier!

Wilh. Hast du nichts gesehen? nichts gehört? nichts empfunden?

Ad. Nichts, als daß mich schläfert, und daß es sich verzweifelt unsanft auf diesem Stuhle schläft.

Wilh. Aber die Musik, die du vorhin vernahmst!

Ad. Thor! ich weiß von keiner. — Laß uns zu Bette gehen; du siehst ja doch, daß deine Louise das Wiederkommen vergessen hat.

Wilh. Oder vielmehr, daß manche da schlafen, wo andere sehen und hören. — Komm indessen nur mit! Komm! [beide gehen ab]

[Fortsetzung künftig]

Erklerung des Calenders.

Der erste Colum enthält die Tage der Woche. Die zweyte Colum enthält die merkwürdigen Tage mit ihren Namen, und den Datum des Monats.

Die dritte Colum enthält die Stunde des hohen Wasser bey Philadelphia.

Die vierte Colum zeigt die Stunde und Minute, wenn der Mond jeden Tag über die Mittags-Linie kreuzet.

Die fünfte Colum zeigt die Stunde und Minute wenn der Mond auf und unter geht; nemlich vom Neumond bis Vollmond den Untergang, und vom Vollmond bis Neumond den Aufgang; weil der Untergang nach dem Vollmond und der Aufgang nach dem Neumond, bey Tage stattfindet, und daher nicht bemerkt wird.

Der sechste Colum zeigt den Lauf des Mondes durch den Thierkreis, wie er in der Nähe der Erde (welches durch ☾ im per. bezeichnet ist) stark geht, und in seiner weitsten Entfernung von der Erde (daß durch ☾ in apo angegeben ist) am langsamsten geht. Dieser Colum zeigt erstlich das Zeichen des Thierkreises in welchem der Mond an dem Tage ist oder eintrit; und die Stunde wenn der Mond in daß davor stehende Zeichen eintrit; die äußere Reihe Zahlen zeigen die Grade an in welchem Grade des Zeichen der Mond um 12 Uhr Mittags ist. Ich habe für die Bequemlichkeit des Landmanns, der aus Erfahrung weis, daß der Mond viel Einfluß auf das Pflanzenreich hat, und sich daher beym Säen oder Pflanzen nach den Zeichen des Mondes richtet, die Stunde angegeben, wenn der Mond jedesmal in ein ander Zeichen trit. Die Stunden von 12 Uhr Mittags bis 12 Uhr Nachts, sind mit A. angemerkt, und die Stunden von 12 Uhr Mitternachts, bis 12 Uhr Mittags mit M. angezeigt. Wie zum Beispiel den 1ten Januar steht 8.8M. das heißt: der Mond geht den 1ten Januar 8 Uhr Morgens in das Zeichen des Löwen; und den 6ten Januar steht in dem sechsten Colum 6m. daß ist, der Mond geht um 6 Uhr Morgens

Figure 12. Portion of Article from 1839 Neuer Verbesserter Calender *Concerning Almanac Entries.*

oder Wintermonat, hat 30 Tage.

Monds-Viertel.

Neumond ist den 6ten, 3 Uhr 10 min. Morgens; Schneegestöber.

Erstes Viertel ist den 14ten, 4 Uhr 12 min. Morgens; Regen.

Vollmond ist den 29sten 9 Uhr 12 min. Abends; meist helle.

Letztes Viertel ist den 27sten, 5 Uhr 25 min. Abends; schön helle.

Sonnen Eintrit im Schütz, d. 23sten Nov.

Kinder im November, oder Schütz geboren, haben Lust viel zu lernen, sind häußlich, und haben das Ihrige gern rein und sauber, sonst aber sind sie jähzornig und gehäßig.

gesetze weislich geordnet, und hier den Menschen vor Augen gelegt; hat auch den Menschen Verstand gegeben, die Ursachen für jeden Gegenstand zu erforschen. Da nun nichts ohne Ursache ist, so hat die Witterung auch ihre Ursache in der Natur.

Ich habe schon eine Reihe von Jahren, nach astronomischen Gründen, die Witterung für jeden Tag jahrelang vorher bekannt gemacht, und durch Erfahrung allgemein richtig befunden; und so werde ich fortfahren, immer mehr Gründe zu suchen, und immer besser und richtiger die Witterung für jeden Tag, aus dem Stande der Himmelskörper Jahre lang, vorher anzugeben. Die, welche darnach sehen wollen, werden finden, daß die Witterung, so wie sie in diesem Calender, für jeden Tag angegeben, größtentheils allgemein zutrift. Es muß aber bemerkt werden, daß weil die Witterung zwar für jeden Tag angegeben, den Tag der immer um 12 Uhr des Nachts wechselt, anfängt und endet; daß das Wetter sich nie darnach richtet, und nie oder selten, zur selben Zeit mit den Wechsel des Tages, weil rund um die Erde alle Stunden des Tages zu einer und derselben Zeit existiren; wenn es daher heißt, den 10ten Regen, sollte niemand daraus schließen, daß das gemeint wäre, es sollte um 12 Uhr Nachts anfangen zu regnen, und wenn die 24 Stunden herum wären, grade aufhören; die Witterung, welche dieser Calender angiebt, ist aus dem Stand der Himmelskörper mit ihren Einfluß auf unsere Erde genommen, und geht alle Bewohner die mit uns die vereinigten nördlichen Staaten Länder bewohnen, gleichviel an, daher kann die Stunde oder Tag nicht genau bestimmt werden; eine einzige Minute ändert den Datum des Tages, und wenn ein Kaufman in Philadelphia bey einer richtigen Uhr einen Brief datirt Abends 11 Uhr 57 Minuten den 31sten März, so ist diese Zeit bey einer richtigen Uhr in Newyork, schon der erste April, Morgens 12 Uhr 2 Minuten. Das Wetter kann daher im allgemeinen Calender nicht genau auf die Zeit bestimmt werden; die Witterung trift aber mehrentheils bis auf einen Tag früher oder später in unserer Latitude fast immer zu. Was örtliche Witterung betrift, solche als Gewitterschauer, Schloßen oder Schneestürme, welche manignal nur in einen kleinen Raum statt finden, diese haben zwar auch ihre Ursache, und werden durch die Bestandtheile der Luft, von dem Einfluß der Himmelskörper in Bewegung gesetzt, sie sind aber nicht allgemein, und ihre Wirkung ist nur auf kleine Theile der Oberfläche der Erde eingeschränkt wo die Luft so beschaffen ist, daß sie durch eine solche Operation, mit der allgemeinen Luft wieder in einen mehr gleichen Zustand versetzt und vereinigt wird; dieses vorher zu bestimmen, erfordert besondere Erforschungen, nach ihrer örtlichen Lage. Wenn ich durch meine Beobachtungen das Wetters, für die allgemeine Wohlfahrt der Menschheit, in meiner beschränkten Lage, auch nur den geringsten Dienst leiste, werde ich mich glücklich schätzen; und die starke Nachfrage für meine Calenderberechnung mit der muthmaßlichen Witterung für jeden Tag, zeugt und stärkt meinen Muth ferner die Ursachen der Witterung zu ergründen. Ich übergebe nun diesen Calender an das Publikum, in der Hoffnung durch meine Wetter Beobachtungen und Wetter Anzeigen, fernerhin nützlich zu seyn, als des Publikums getreuer Diener

Carl Friedrich Egelmann.

Trost und Hoffnung.

Ich will den Himmel walten lassen;
Denn seine Leitung täuscht mich nicht!
Hoffnung, Muth, Vertrauen fassen,
Giebt in dem dunklen Thale Licht;
Pflanzt in der Wüste, Blumenpfade;

Figure 13. Portion of Article from 1839 Neuer Verbesserter Calender *Concerning Weather.*

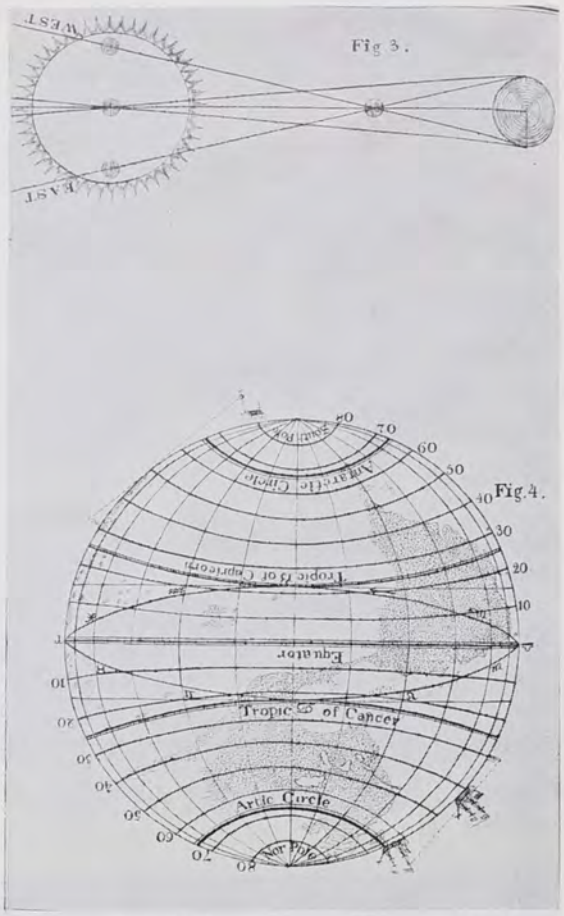


Figure 16. Various Climate Zones on Earth.

by hand and nearly all of them have his signature. The most elaborate collection of Egelmann's engravings are the 11 astronomical figures in Walz's text. These are of interest primarily because the fine technique allows detailed figures to be displayed. An ability to display detail in astronomy up to the mid-19th Century was significant because it preceded the advent of photography. The Frankturs in the text (see Table) are uniformly dispersed throughout the text without regard to neighboring textual material.

TABLE: Frakturs in Walz's Text

Plate number	Description of plate
I	Night view of sky through telescope
VII	Phases and aspects of Mercury and Venus
IV	Surface and phases of the moon
VIII	Seasonal positions of earth
III	Various climate zones of the earth
VI	Solar and lunar eclipse progressions
V	Relative sizes of planets and asteroids
II	Solar system

Plates V, VI and VIII have been displayed and discussed in Article I of this series; plates I and IV in Article II; and plate II in Article III. Plates III and VII are shown here in Figures 16 and 17, respectively.

The Fraktur of the solar system appearing in the 1832 *Neue Readinger Calender* (Figure 18) is the only one appearing in an almanac with his name. It is con-

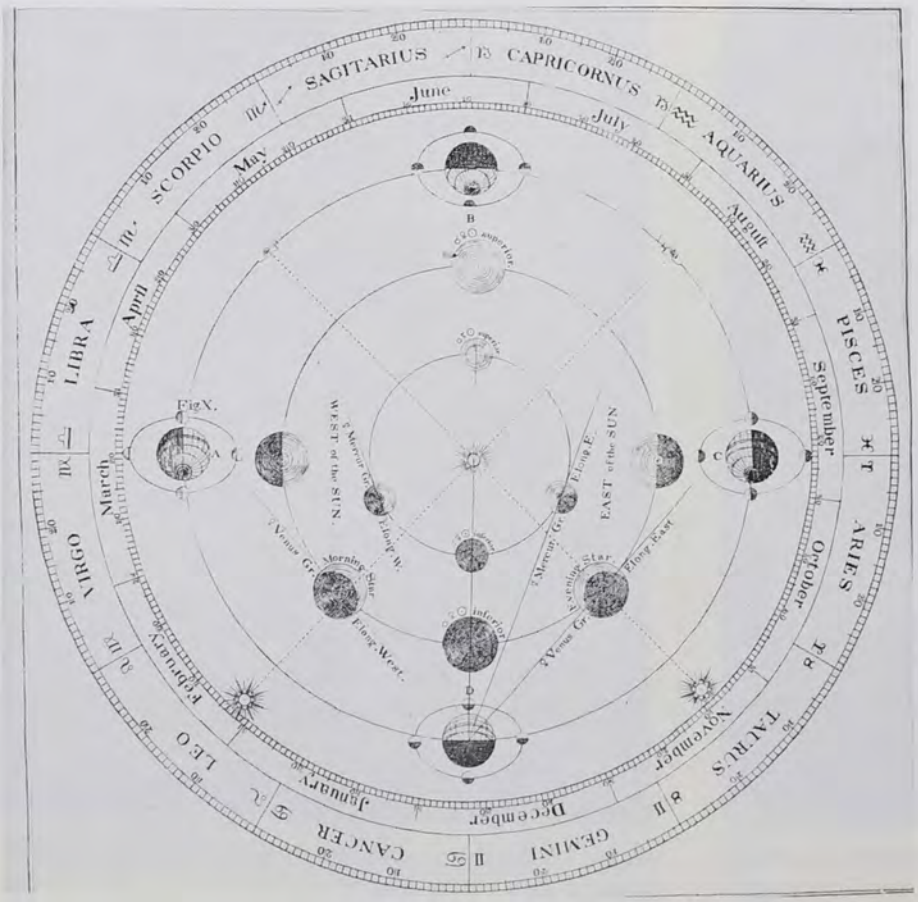


Figure 17. Phases and Aspects of Mercury and Venus.

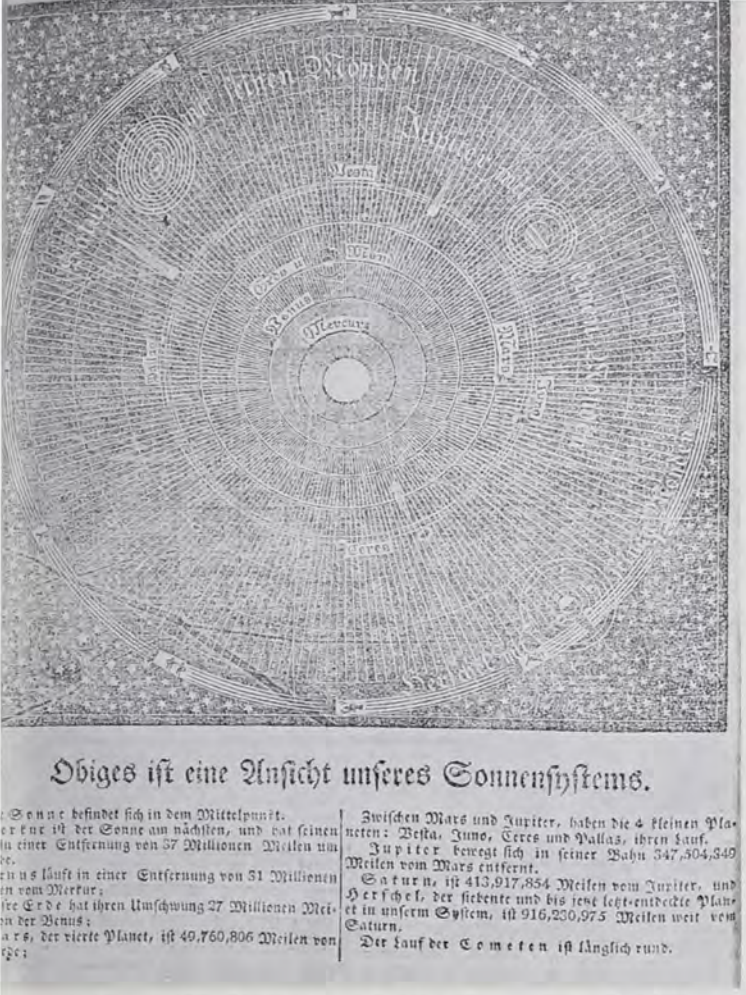


Figure 18. Engraving of Solar System from 1832 Neuer Readinger Calender.

Figure 19. Comets of 1805 and 1812 from 1833 Anti-Masonic Almanac.

siderably more complex than the solar system found in his perpetual calendar (Figure 3) and comparable in complexity to plate II. In all three Frakturs the solar system is depicted as it was known then.

It appears that the Fraktur of the comets of 1805 and 1812 (Figure 19) appearing in the 1833 *Pennsylvanische Anti-Freymaurer Calender* is also Egelmann's. His name appears twice, once for the computations and again for the poem appearing in the almanac. The Fraktur and article referring to the Fraktur are found between his names. With the stipple technique Egelmann is able to depict some of the nebulousness of the comets. He even shows the nucleus of the 1812 comet (designated as 1) as well as stars seen through the tail. The 1805 comet (designated as 2) has no tail.

Egelmann also has astronomical illuminations which appear in his copy book (see Figure 2, cover of this issue), and on the covers of the almanacs he published (see Figures 6-8). Even though the copy-book is intended for instructing the youth to write he includes a quote by Addison on the heavenly bodies (see Figure 20).

In addition to all the mentioned astronomical Frakturs Egelmann also produced a number of non-astronomical works. His excellent style and position of leadership in stipple work in this area has been described by Shelley.[17] Shelley has shown that another stipple engraver, Gabriel Miesse (1807-1886) was influenced by Egelmann and perhaps even studied under him. Of Egelmann's non-astronomical works the ones of greatest significance are his two beautiful birth and baptismal certificates (see Figure 21). The certificates are of interest since they do not have a place on them to specify the sign of the zodiac in which the sun was at the moment of birth. Many certificates of that era had this information, and the fact that Egelmann did not allow for the data is further proof he did not generally believe in astrology.

Conclusions

Egelmann's association of religion and astronomy is evident in a number of areas. In Figure 8 and Plate I of Walz's text there is a reference to Psalm XIX.I. In these two figures, Walz's text, and the 1833 *Pennsylvanische Anti-Freymaurer Calender* poem there are references to the order and beauty of the universe being created and controlled by God.

All of Egelmann's poems, his most important articles and largest series of computations appeared in almanacs in which he had a deep personal involvement. These almanacs include the *Neue Readinger Calender* and the *Neue Verbesserter Calender* which were published in the area where he lived, Reading. The *Pennsylvanische Anti-Freymaurer Calender* and the *Neue Verbesserter Calender* were the first two almanacs he published.

[17]Shelley, *op. cit.*, pp. 157-160.

Egelmann has always been recognized in one way or another. During his lifetime he received honors for his almanac work. An M.A. degree appears in the 1847-1849 and 1855 issues of the *Farmer's Calendar* after the name Chas. F. Eaglemann. He was also made an honorary member of the New England Society of Mathematicians[18]. Posthumously he continued to receive recognition. Short versions of his biography have been appearing steadily since 1886. The residents of Lower Alsace Township named a dam, reservoir and park, Egelman. Egelmann's recognition as deduced from places of publication of his almanac calculations occurred somewhere during the period 1828-1830. This evidently inspired him somewhat since he shows a flurry of productions from 1830-1834. During this latter period the number of almanacs in which his calculations appeared rose to an average of 12. During this period he prepared 11 figures for Walz's text, and contributed two Frakturs, two articles and two poems to three almanacs. He issued a second and enlarged edition of his very fine copy book, and published three issues of his provocative *Pennsylvanische Anti-Freymaurer Calender*. It is to be noticed that these events also preceded and overlapped the occurrence of two spectacular astronomical phenomena. The events were the Leonid shower of 1833 and the apparition of Halley's comet, expected in 1834-1835. This was a unique occurrence because the Leonids occur every 33 years while the comet appears every 76 years.[19] The two phenomena had only been anticipated once before the 1830s. Halley's comet was mentioned in Egelmann's 1833 *Pennsylvanische Anti-Freymaurer Calender* comet

[18]This writer has sent many letters to institutions in a vain attempt to determine who awarded Egelmann an M.A. and to verify his membership in the Society.

[19]The comet and shower are discussed in Article III of this series.

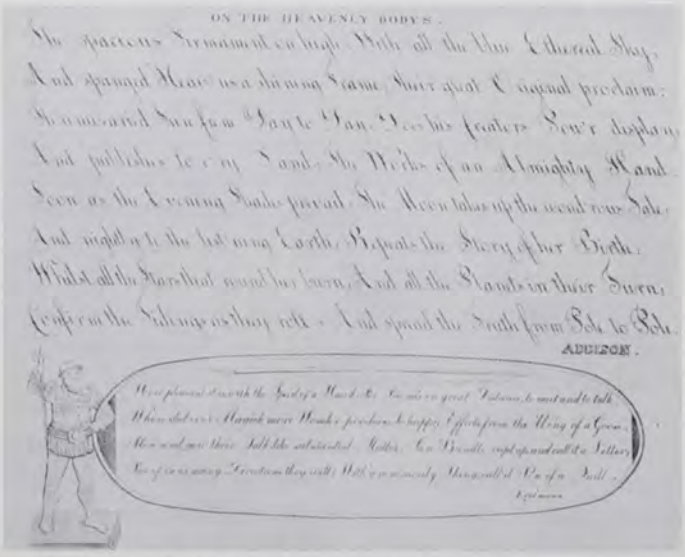


Figure 20. Page from Egelmann's Copy-Book with Quotation Concerning Heavenly Bodies.

Figure 21. Birth and Baptismal Certificate Engraved by Egelmann.

article, which was of unprecedented length, while the comet and the Leonids were mentioned in Walz's text. In addition to his newly acquired prominence, Egelmann's flurry probably may have also been another example in the history of astronomy where spectacular astronomical events stimulate astronomically related work.

Although Egelmann is frequently referred to as astronomer his contributions were not sufficiently in the forefront of astronomy to classify him as such. The idea that Egelmann was concerned with any scientific ideas outside of almanac calculating only concerns his attempts to build perpetual motion machines.[20] Egelmann, however, probably was the world's most productive almanac calculator. His calculations, articles, notes, illustrations and poems made a significant social and cultural impact on the life of the Pennsylvania Germans and people of surrounding areas during the 19th Century. His contributions from 1823-1863 overlap as well as helped develop the period of the greatest achievement of the American almanac tradition.[21]

[20]Montgomery (1886), *op cit.*

[21]L. Winkler, "Astronomical and Astrological Content of Common Almanacs in Early America," *Griffith Observer*, 1973.

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The Ground Rules of Folk Architecture

By ARTHUR J. LAWTON

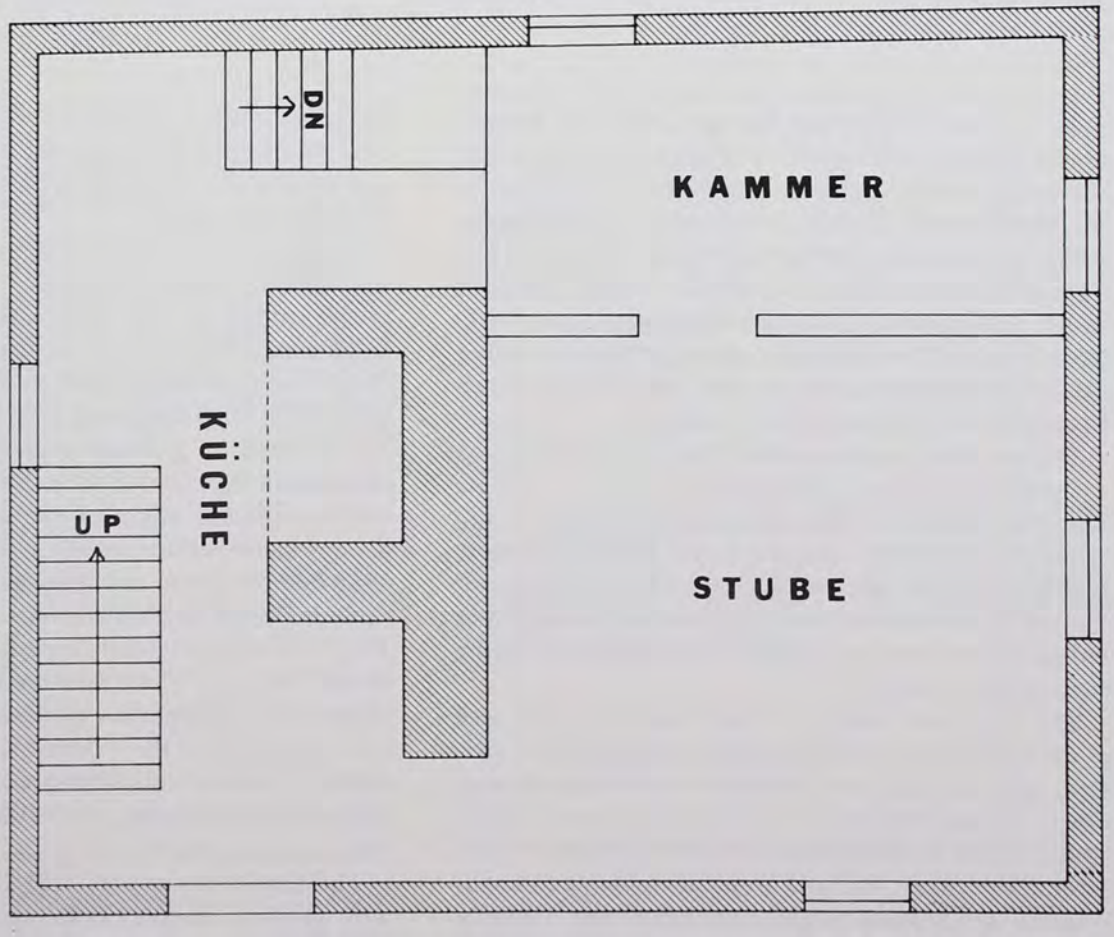
A promising approach to the analysis of folk architecture was set forth by J. Marshall Jenkins in an article entitled "Ground Rules of Welsh Houses: A Primary Analysis," which describes a geometric method for determining the proportions, and to some extent, the internal arrangement of Welsh houses.[1] We wish to report here the successful application of these principles to the central-fireplace, three-room plan house form introduced to the Pennsylvania countryside by the German and Swiss settlers of the first half of the 18th Century.

This geometric method, with its variants, served the builder as a wholly adequate, but non-literate, substitute for the scaled drawing or blueprint. By non-literate, we mean that it was not necessary to read, or write, or count in order to construct a well integrated floor plan and to be assured that the assembled parts of the building would fit well together when placed into position. This geometric system is a part of that body of oral lore possessed by a community whose expression is found in the community's objects of material culture rather than in acts of verbal communication.

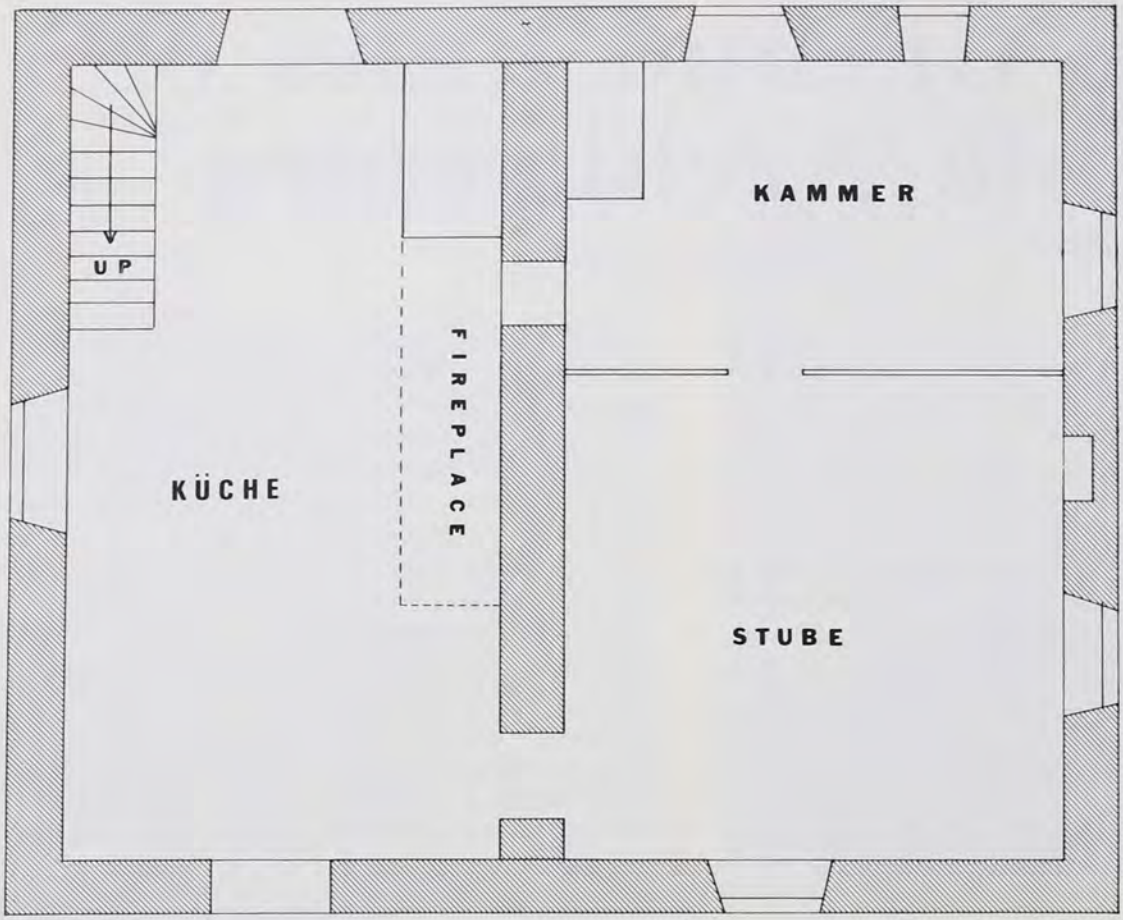
Finally, sufficient examples of this system of geometric organization have been identified representing synchronic and diachronic distribution, to suggest a significant application of the principle of geometric organization to problems of definition and classification in folk architecture. To this end, we are now analyzing, among others, 15th Century English, 17th Century Connecticut, 18th Century Pennsylvania German, 18th and 19th Century German, Victorian English, and American houses.

[1]J. Marshall Jenkins, "Ground Rules of Welsh Houses: A Primary Analysis," *Folk Life,* V (1967), 65-91.

Drawings by Beauveau Borie



Floorplan of Knerr Log House, Montgomery County, Pennsylvania.



Floorplan of Antes House (1735), Frederick Township, Montgomery County, Pennsylvania. This house has historical importance since it housed the first interracial school in the Eastern United States.

Floor plans will illustrate the most prominent features of the type of building we wish to analyze. The first shows the Knerr log house located near Schwenksville in Montgomery County, southeastern Pennsylvania, which was probably constructed between 1725 and 1750. The floor plan displays a centrally located fireplace which is off center, a kitchen whose axis is parallel to one gable, a somewhat square room in the front and a smaller rectangular room to the rear whose axis is perpendicular to that of the kitchen.

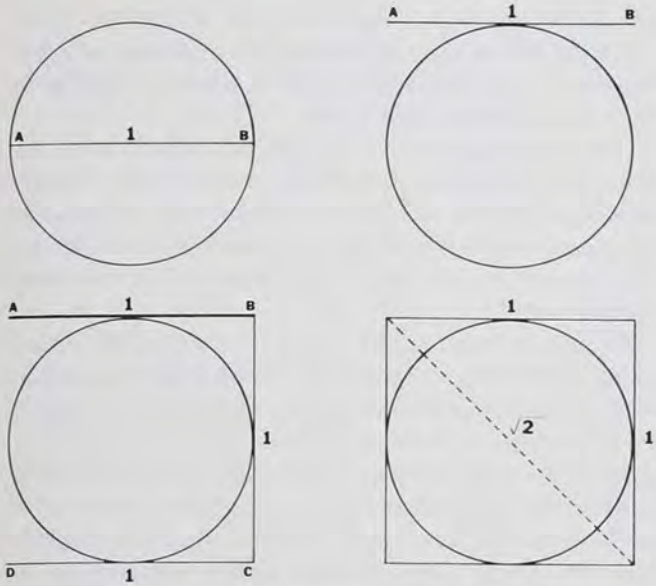
Similar form is seen in the Heinrich Antes house, a two-story structure constructed in stone in 1735 in Upper Frederick Township, Montgomery County, Pennsylvania. The house appears to be constructed more massively, but its internal organization is the same as that of the Knerr log house. To our knowledge, this building form does not appear in Montgomery County constructed in brick.

The European origins of this house form, as well as the distribution of its individual architectural features, have been carefully and frequently studied, by, among others, August Meitzen in *Das Deutsche Haus* (1882), Bruno Schier in *Kulturbewegungen im Östlichen Mitteleuropas* (1929), Richard Weiss in *Häuser und Landschaften der Schweiz* (1959), and Eberhardt Deutschmann in *Lausitzer Holzbaukunst* (1959). We shall concern ourselves in this paper not with problems of origin and distribution, but with organization for the purpose of spatial enclosure.

It will be useful now to reflect on the extent to which the need for order throughout the physical universe permeated the concepts of an earlier humanity. Though it probably occurred much earlier, Pythagoras described clearly the relationship between a musical tone and the length of a vibrating string producing the tone. Plucking one half of a string produces a tone one octave higher than that produced by the whole string, and thus was derived the origin of the so-called "perfect harmony," or octave, expressing a ratio of 1:2.

At first the lower and simpler ratios were considered to be the more harmonious ones. Thus the ratios 1:1, 1:3, 3:4, and 1:2 were favored and heavily used intervals, being C, F, G, and the octave C on the scale respectively. During the medieval period, these tones were elevated as the "perfect consonances," and an aesthetic reverence developed whose basis was theological and philosophical, while the pragmatic origin of the ratios was forgotten.

The simple ratios, 1:1, 1:2, 2:3, 3:4, 5:7, and 7:9 were similarly revered in the architecture of high cul-



Construction of Unit Square of House from Circle.

ture. E. Eugene Helm, in an article on the vibrating string of Pythagoras[2] says,

> To St. Augustine the octave seemed to be rooted in the very being of even the most untutored man and therefore must have been implanted in man's nature by God himself as a means of conveying to human ears the meaning of redemption.

Rudolf Wittkower has shown that this musical expression of mathematical relationships, as well as the entire Pythagorean, Platonic, and Neo-Platonic context in which it was developed and presented to the medieval world, became the basis for determining the proportions of building in Italy in the 15th and 16th Century.[3]

That the concept of order through geometry extended to all aspects of the physical universe was expressed clearly in the idea of the "Music of the Spheres", in which moving bodies in space produced tones unheard by mortals, wherein faster moving bodies produced higher tones than slower moving bodies. In the Ptolemaic universe bodies moving at great distances from the sun move faster than those which are closer to the sun. These relationships of distance, speed, and consequently pitch were held to be harmoniously related in the consonance of the "Music of the Spheres".

It would be surprising indeed if such a geometrically oriented universal outlook at the level of high culture did not have an effect on the ordering of life at the folk-cultural level. This is particularly so in light of the fact that geometric relationships had their origin in the pragmatic observations of earlier man.

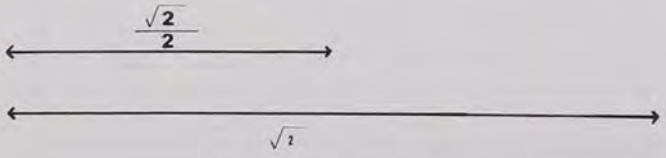
We shall find a very important application of geometry to the ordering of the folk universe in the laying-out rules governing the construction of folk buildings. The commonly accepted 17th Century English term denoting these rules governing the laying out of a building is seen in the title of the 1670 edition of Sir Henry Wottan's *Elements of Architecture,* which was republished in that year under the title of *The Ground Rules of Architecture.* Implicit in this term "ground rules" is the practice of laying out the lines of the building on the ground where it was to be constructed. This was not a literal marking out of all the lines of the plan, but rather the determination by geometric means of the points where significant architectural features were to be located. Examples of this geometric laying out of features may still be seen in the cathedral at Limoges, where geometrical setting out was done on the granite slabs of the aisle roofs, probably by Master Jean Des Champs or his son Pierre, circa 1300. While floor plans for many hundreds of major early buildings have been drawn for study by scholars since the middle of the Century, a considerable bibliographic search in 17th and 18th Century materials has failed to locate a method for the laying out of the plan. This omission is particularly evident in an anonymous manuscript book of about 250 pages dating from the late 19th Century and entitled simply *Baukunst.*[4] While this very comprehensive and thorough architectural notebook contains detailed drawings and notes regarding every manner of folk-architectural method and material in common use prior to 1800, it does not deal with any aspect of the method of laying out a building. Similary, the builders' manuals of the 17th, 18th, and 19th Century do not contain reference to the method of laying out the plan.

Ground rules appear to have been entirely within the body of lore common to those who practiced the building trades. It cannot be argued that these rules were a trade secret known only to the guild master craftsmen, since the rudest of log one-and-a-half story buildings of the southeastern Pennsylvania countryside is constructed according to these principles. The instructions of the owner to the designer or builder, though specific regarding certain points which he wished incorporated into the building, were sufficient in latitude to permit

[2]E. Eugene Helm, "Vibrating String of the Pythagoreans," *Scientific American,* December 1967.

[3]Rudolf Wittkower, *Architectural Principles in the Age of Humanism* (London, 1949).

[4]Rare Book Room, Van Pelt Library, University of Pennsylvania, Philadelphia, Pennsylvania. The volume, 291 pages, is entitled *Baukunst Cursus I,* and was presented to the university in 1905 by Mrs. I. Grant. It is a builder's manual, evidently involving the apprentice's lecture notes, and is filled with drawings and diagrams. It is German and dates from the second half of the 19th Century.



Expansion of the Square.

the builder to dictate the specific organization of the building. The designer or builder followed a formula, working such minor variations as would suit the needs and taste of the owner, without exceeding certain parameters. The owner and the builder on this side of the Atlantic were more frequently than not the same person.

The ratios governing the generation of a plan, as it was expressed on the ground at the time of construction, came about for purely pragmatic reasons. We quote here from J. Marshall Jenkins:

> To appreciate the reasons for the generation of these ratios we have first to recognize the traditional approach that craftsmen have always held to their trade practices. Their approach was concerned with organizing the building process to include the minimum of physical and mental effort. This could only be achieved when it was known beforehand that all the parts assembled for the erection of a building would fit together with reasonable certainty . . . . . Nowadays we record this information on detailed drawings produced to scale, but such drawings were not used for vernacular buildings until the nineteenth century, nor indeed, for very many larger buildings either. Craftsmen relied on traditional regulations to provide the information they required for correct dimensional inter-relationship of building parts, and it was this sort of information that tradition collected and disseminated.[5]

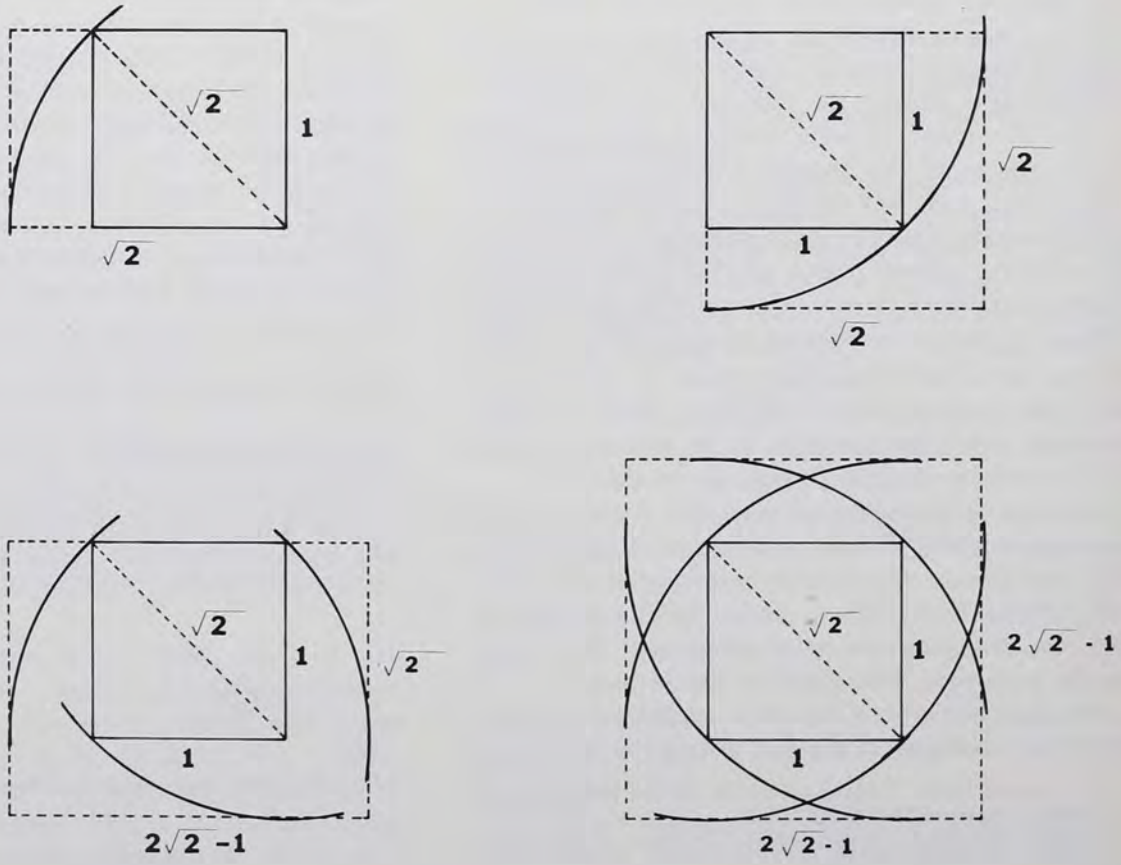
Since the size of domestic buildings varies widely according to the means and purpose of the owner, geometric regulations permitted the builder to insert an initial determining dimension, knowing that all other members of the building would be scaled according to that initial determining factor.

The following synopsis of Jenkins' derivation of the geometric principles underlying architectural ground rules will provide the necessary theoretical background for a proper understanding of the application of ground rule theory to the folk architecture of southeastern Pennsylvania.

Geometric relationships could be recognized before mankind developed a system of counting and measuring. One can recognize intuitively to a fairly accurate degree the equivalence of the length of the four sides of a square. By such simple observations, the relationship between the circumference, diameter, and radius of a circle were also recognized. Perhaps these relationships were discovered through such simple observations as that of a tethered animal grazing out a circle in the grass of a meadow where the rope forms the radius of the circle. Of particular use was the equivalence of the length of the diameter of a circle and the length of the sides of a square whose four sides are tangent to the circle.

Using a rope whose length is equal to the diameter of a given circle, a perfect square may be constructed in the following manner: When the circle has been marked on the ground, the center of the rope is deter-

[5]Jenkins, p. 68.



Expansion of the Square.

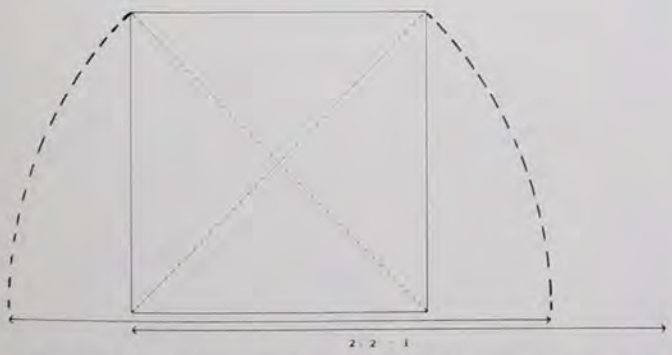
mined by folding it in half. The center point of the rope is placed on the perimeter of the circle at any point, and the rope is stretched out so that it is tangent to the circle. Stakes are placed at both ends of the rope at points A and B. An end of the rope is placed at point B and the center of the rope again placed tangentially on the perimeter of the circle. The other end of the straight rope marks point C. A right angle has been formed to line AB whose sides are of equal length to line AB. Placing the rope again at points C and D successively, the other two sides of the square are formed.

The key element in all examples of ground rules studied to date is the diagonal of the square, a mathematical entity about which there has been considerable misunderstanding over the centuries, since it is nonrational and cannot be computed decimally. The Renaissance architect Alberti refers to the length of the diagonal as difficult to calculate but easy to draw, and uses the circle to form a square in the manner just outlined.[6]

The manner in which a diagonal is used to generate a rectangle for the construction of a building is through the method of swinging the diagonal. In a square to whose sides we assign the value of 1, by the Pythagorean Theorem, the length of the diagonal is equal to the square root of 2. By swinging the diagonal thus, we create the dimensions of a rectangle whose sides are in the ratio of $1 : \sqrt{2}$, close enough to a 5:7 ratio that the error was not significant in practical building construction. This 5:7 ratio appears repeatedly in the buildings we have studied. A second and larger rectangle frequently encountered can be constructed by swinging diagonals from two corners of one side, the resulting length being expressed by the term $2\sqrt{2} - 1$, a 5:9 ratio. A total of four rectangles may be constructed from the unit square in the ratios of 5:7, 7:7, 7:9, and 9:9. Each of these can be multiplied by any number to create larger rectangles, or a unit square of any size may be employed.

It is the purpose of the balance of this paper to demonstrate the use of ground rules in certain Pennsylvania German houses and to suggest briefly at the close some thoughts regarding the significance of this discovery.

[6]Jenkins, pp. 68-76.



The facade is frequently constructed by swinging the Diagonal twice.

To date we have identified four functions of the use of the geometry of the diagonal in the plan of folk buildings. These are as follows:

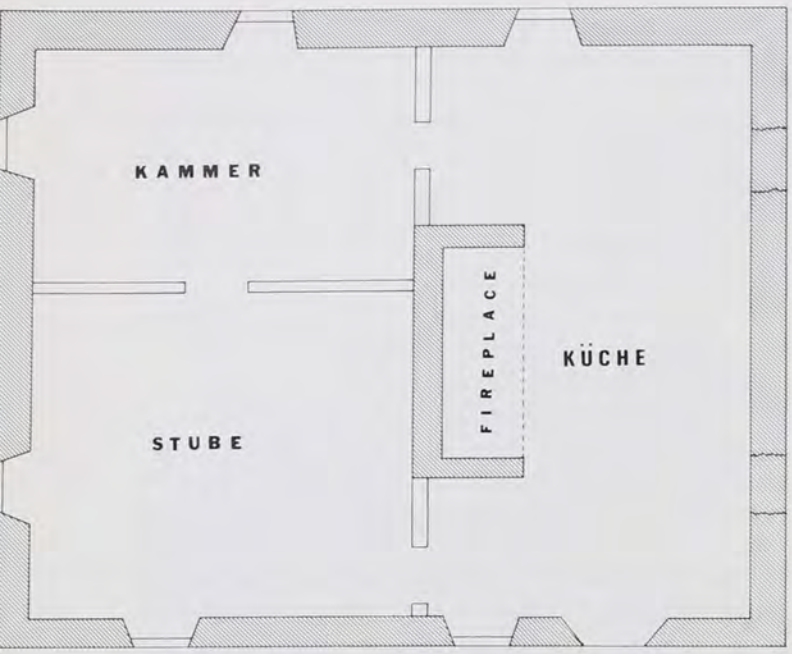
1) Control of the external ratios of the building and its parts.
2) Internal division of space.
3) Location of windows, doors, fireplace, and other significant architectural features.
4) Determination of rafter length.

We will forego a discussion of the determination of rafter length at this time in order to treat it more adequately in a later paper dealing with the way in which geometric rules govern the elevation of structures.

An examination of the Knerr log house will illustrate the use of geometry in formulating the plan of the house. The three rooms on this plan are referred to in the Pennsylvania Dutch dialect as the *Kich,* the *Kammer,* and the *Schtupp* (High German *Küche, Kammer,* and *Stube*), the English equivalents being kitchen, chamber, and parlour. In all cases studied to date except one, the unit square is located in that corner of the house wherein is located the *Stube.* Note in our illustrations the placement of the fireplace precisely at the corner of the unit square. The gable *Kammer* window, the southeast corner of the house, and a small partition on the southwest corner of the *Stube* are placed on the other corners of the unit square. The diagonal of the unit square determines the length of the gable, locating the front and rear lines of the house. The width of the house is determined by $2\sqrt{2} - 1$ line. The rear *Kammer* window is located at the unit square value and the west gable window is located at a value of ½ of $\sqrt{2}$.

A similar house constructed of stone and examined in this manner is the Hans Herr house in Lancaster County, Pennsylvania, constructed in 1719.[7] This house is a mirror image of the Knerr house. The unit square is located at the *Stube,* extending along the *Feuerwand* (fire wall) to the fireplace corner. Here the unit square does not define a window location, but the length of the gable inside the front and rear walls is equal to the diagonal of the unit square, or $\sqrt{2}$ value. In this case the front and rear walls fall outside the ground lines. Swinging both diagonals down to the front line and copying this distance to the proper location will give the length of the house, where one wall falls inside the line and the other outside the lines. While we have not yet had time to investigate this matter specifically, we suspect that stone and brick construction provides a freedom in placing walls inside and outside the ground

[7]For an analysis of the Herr House, see Robert A. Barakat, "The Herr and Zeller Houses," *Pennsylvania Folklife,* XXXI:4 (Summer 1972), 2-22.



Floorplan of Hans Herr House, Lancaster County, Pennsylvania, erected 1719.

lines which does not prevail in the construction of log buildings. In the latter case, the front and rear walls are generally placed outside the lines and the gable walls placed inside the lines. Two windows in the *Stube* are placed at ½ the unit square length. One window at the rear is placed at ½ $\sqrt{2}$ value, the other at the full $\sqrt{2}$ value. The front door is located at the $\sqrt{2}$ value. The fireplace is located at the corner of the unit square and the placement of the *Kammer* gable window seems to be one half the distance remaining between the end of the unit square and the back wall of the house. Data on the other gable wall was not sufficiently accurate to be included in this study.

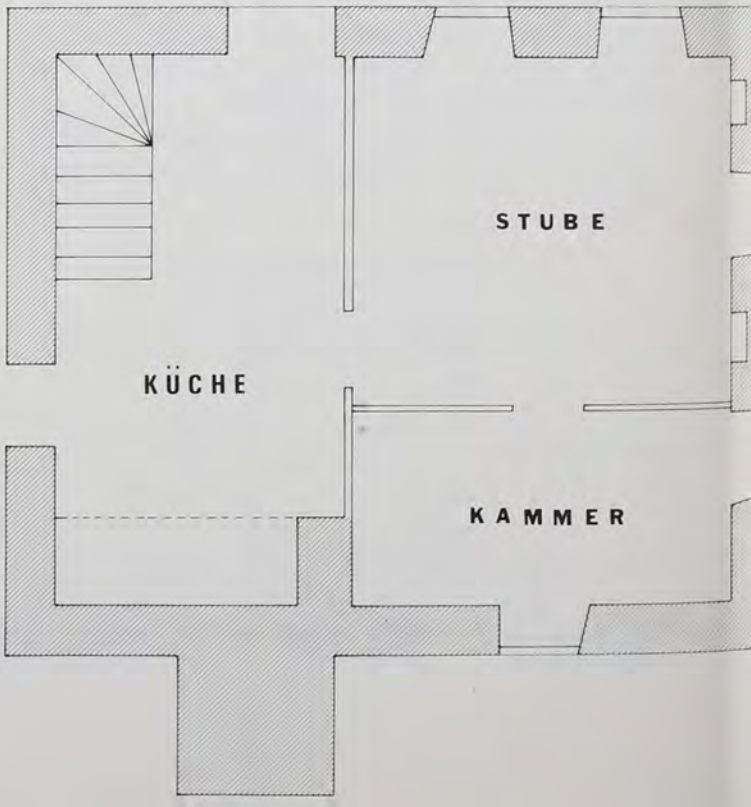
A study of the Conrad Grubb house, constructed of stone in 1740 in Upper Frederick Township, Montgomery County, Pennsylvania, shows the same ground rules as the preceding two buildings, with an interesting and rare variant fireplace location. The same may be said of the Heinrich Antes house, constructed of stone in 1735 in the same township.

To the field worker, of course, the greatest value in understanding traditional ground rules lies in their diagnostic value in interpreting the history of a structure. Since the major features of traditional buildings may now be seen to be governed in their location by a highly predictive system, deviation from the ground rules in a certain portion of a house is indication of alteration, addition, or other subsequent change. Certainy the most common form of alteration in the 18th Century was addition to the original structure. As a result, one frequently finds either the whole or a portion of the original structure encased within a larger structure. Knowing the ground rules and utilizing a simple mathematical formula, it is possible to hypothesize an original unit square size, since in nearly all cases the gable dimension is either the unit dimension of one or the $\sqrt{2}$ value. A single measurement from a corner to a gable window, or in some cases across the entire gable wall, allowing for placement of the front and rear walls either inside or outside the ground lines, will provide a most likely unit square size. One then proceeds to lay out a theoretical building based on this unit square. Where architectural details such as fenestration, fireplace location, and external dimensions and proportions match those of the projected building, one interprets the data as an original part of the building. Where these cannot be made to match, or where they follow a different system, one interprets an addition or alteration.

This we were able to demonstrate in the Andreas Rieth house, also of Montgomery County, Pennsylvania. This Federal facade house shows a central hallway and a fair degree of external symmetry. However, a seam extending upward to the second floor level indicates that a major renovation had been carried out. The door-window-window pattern at the right side is indicative of the central-fireplace, three-room floor plan of the Germanic houses of the early 18th Century, rather than the commonly accepted interpretation dating to the Federal period of the early 19th Century.

To ascertain this, we measured the gable. A probable $\sqrt{2}$ value was achieved by subtracting a front and rear wall value of 2′2″, a decision based on the pre-metric carpenter's foot common to the Germans of the 18th

Floorplan of Conrad Grubb House, Upper Frederick Township, Montgomery County, Pennsylvania (1740).



Century. Using this length we constructed a diagonal from the corner, locating the opposite corner of the unit square. We then drew in the four sides of the unit square. Construction of a $2\sqrt{2}-1$ value produces a line, which when transferred to the corner of the unit square, falls at its other end precisely on the seam which raised our suspicions in the first place, indicating that the seam marks the location of the corner of an original 18th Century house. Further investigation inside the house showed that the central chimney pile was removed and a staircase put in its place. Other houses have yielded similar results when analyzed by these methods.

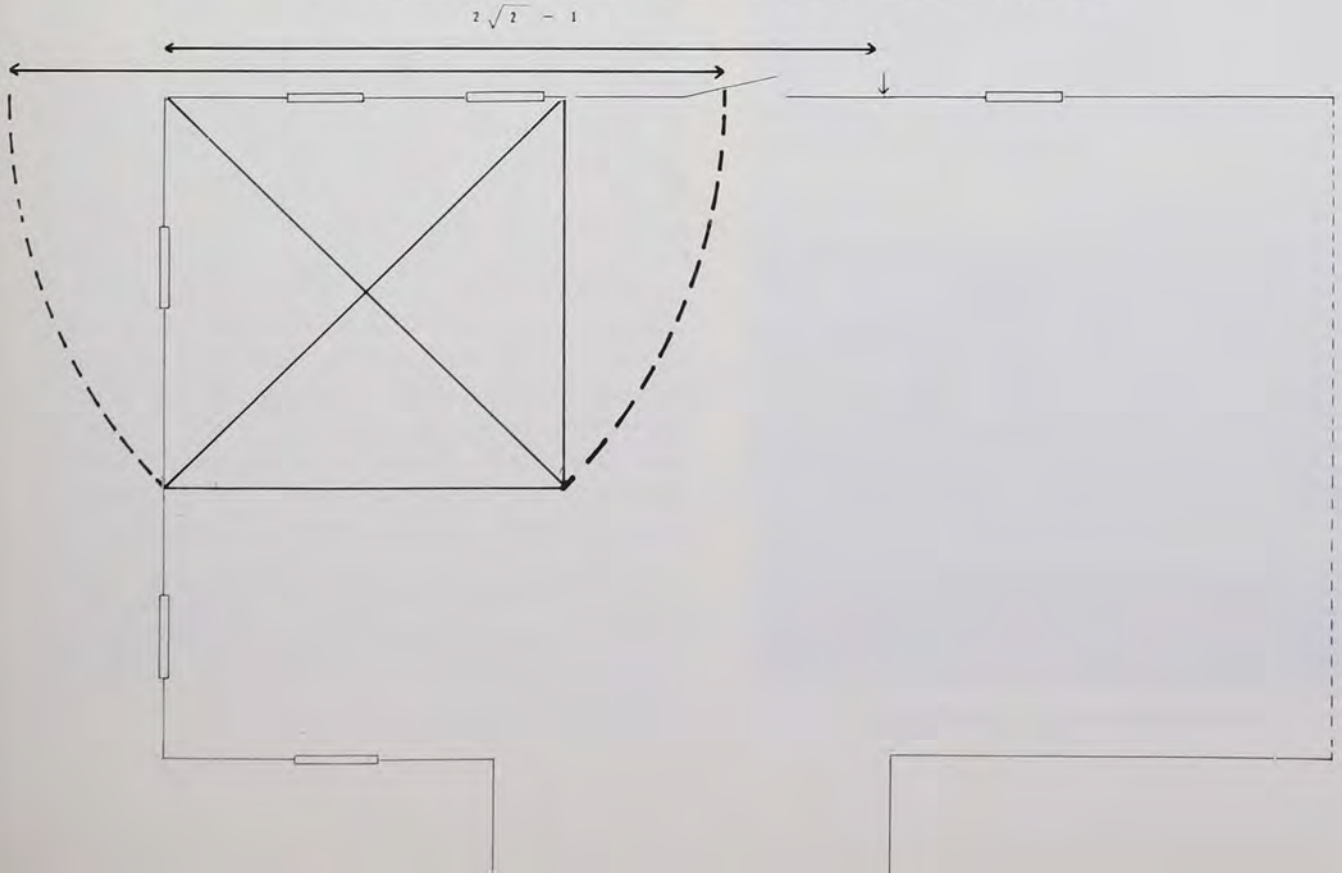
Briefly stated, these examples of Pennsylvania German architecture demonstrate a dimensional inter-relationship which is determined by a predictive geometric principle first outlined by J. Marshall Jenkins for Welsh houses. This principle, when correctly applied to a field problem, may be used diagnostically to interpret a house.

Finally, a short word should be said regarding new developments in this work which have come to light too recently to be properly treated in this paper. Utilizing floor plans in numerous of the published works on domestic architecture from the Renaissance to the mid-19th Century, we have demonstrated ground rules which follow this geometric principle of swinging the diagonal. This occurs across a considerable span of time and throughout widely varied geographic areas. Among these houses are Kingston Seymour Manor House,[8] English, circa 1470; the priory of Stoke-sub-Hamdon,[9] English, circa 1450; the first stage of the Thomas Lee House,[10] East Lyme, Connecticut, 1664; the Norton House,[11] Connecticut, circa 1690; and the Bushnell House,[12] Saybrook, Connecticut, from the same period. It is particularly interesting to note in a book of plates for Victorian country estate architecture[13] by John Birch, 1874, the apparent use of these same ground rules, as may also be noted in the work of the American architect A. J. Downing in *The Architecture of Country Houses* (1850).

We are particularly interested in the fact that the plans studied to date reduce to a very few simple alternatives in geometric manipulation. At present these may possibly be classified into four variants of the principle of the swinging diagonal. We do not doubt that continued study will increase the number of variants somewhat, and our studies do show that an individual variant is clearly utilized across cultural lines. However, it appears reasonable to think that a classification system could be constructed utilizing geometric structure at the broadest level, containing within its scope cross-cultural material with sub-groupings based perhaps on constructional distinctions, such as the *Sparrendach* or *Rofendach,* the oven dwelling or the hearth dwelling, etc. It is our intention to investigate these exciting possibilities in the coming year.

[8]Margaret Wood, *The English Medieval House* (London, 1965), p. 106.
[9]Wood, p. 199.
[10]J. Frederick Kelley, *The Early Domestic Architecture of Connecticut* (New Haven, 1924).
[11]Kelley, p. 7.
[12]Kelley, p. 7.
[13]John Birch, *Country Architecture* (Edinburgh, 1874).

Unit Square located in the original portion of Andreas Rieth House.



The Eikonostasi Among Greek-Philadelphians

Icon Screen (Iconostasis) in Greek Orthodox Churc

By ROBERT THOMAS TESKE

Among the considerable number of religious customs, including the celebration of Saints' Day festivals, the dedication of votive offerings, and the wearing of amulets,[1] which Greek immigrants to the United States brought with them as part of their religio-cultural heritage, perhaps the most widespread and persistent is the maintenance of a "sacred corner" or *eikonostasi* in the home.[2] In contemporary Greece the *eikonostasi* (colloquial for *to eikonostasion*, "place for the icons") enjoys almost universal distribution.[3] The icons themselves may vary, from the traditional hand-painted wooden panels, which can still be obtained at relatively reasonable prices, to reproductions printed in color or black-and-white by religious goods houses in Athens; so too may the manner of display, which might entail an elaborate series of specially prepared wall niches, the more usual square, glass-doored wooden case, or simply a wooden shelf.[4] However, rarely is there found a home in which no icon is venerated. Among Greek-Philadelphians the situation seems to have deviated little from the norm of the mother country. Icons continue to appear in the homes of the vast majority of the families within the community, without regard to their status as first, second, or even third generation Greek-Americans. Similarly, the attitudes and beliefs surrounding the acquisition, dedication, display, and ritual usage of these icons persist with an equal vigor. It is the purpose of this paper to examine both of these aspects of the Greek-American *eikonostasi:* its physical nature and the complex of attitudes and beliefs surrounding it.

Since it seemed probable, on the basis of analogous suggestions by Gizelis and Georges,[5] and on the basis of certain parallels discovered in my own previous research on votive offerings, that the physical, intellectual and behavioral facets of the *eikonostasi* complex might be very intimately related to a single group, the Greek family, one such group was selected as the focus for this study. The concept of "family" for most first and some second-generation Greek-Americans, however, carries a far different meaning from that customarily accepted by many other Americans. As one of Buxbaum's first generation informants noted, "When we older Greeks think of family we mean all of our brothers and sisters and all of our cousins, uncles, aunts and relatives no matter how little related."[6] Thus, the group

[1]Cf. Robert A. Georges, *Greek-American Folk Beliefs and Narratives: Survivals and Living Tradition,* Unpublished Ph.D. Dissertation, Indiana University, 1964, pp. 48-49; also, Gregory Gizelis, "The Use of Amulets Among Greek-Philadelphians," *Pennsylvania Folklife,* XX: 3 (1971), 30-37.

[2]Georges, p. 49, attests the commonality of the practice for the areas of his fieldwork: Tarpon Springs, Fla., New York, N. Y., Savannah, Ga., Wichita Falls, Tex., Cincinnati, Ohio. For the "sacred corner" in other cultures, cf. Gustav Rank, *Die Heilige Hinterecke im Hauskult der Völker Nordosteuropas und Nordasiens,* FFC 137 (Helsinki: 1949).

[3]As attested by all my informants and by my own field research on the island of Skopelos, Greece, from June through August, 1971.

Central Table in Mrs. A's Parekklisi.

[4]Dem. B. Basileiadi, "H Laiki Architektoniki tis Aiginis," ("The Popular Architecture of Aegina"), *Laographia,* IZ, 17, 1957-1958, pp. 234-237 and Anastasiou M. Karanastasi, "Oi Zeugades tis Ko: H Zoi kai O'i Askolies ton," ("The Plowmen of Kos: Their Life and Problems"), *Laographia,* ID, 14, 1952, p. 235.

[5]Gizelis, p. 37, and Georges, p. 48-49.

studied for this paper is perhaps better characterized as an extended family consisting of some fourteen members: Mrs. A, a woman in her early sixties, born in Epirus, who came to this country with her late husband and three daughters in 1938; Mrs. B, Mrs. C, and Mrs. D, Mrs. A's three daughters, who were born in Thessalonika, came to the United States at a very early age, and attended American schools; their husbands, two of whom were born in Greece and one in the United States of Greek parents; and the B, C, and D children, four boys and three girls, ranging from seven years of age through about eighteen. Mrs. A lives with the family of one of her daughters, Mrs. C, and the other two families each have their own home not far away in what might be called, after Patterson,[7] a "secondary" Greek-American settlement; that is, a settlement once removed from the original area of Greek-American settlement in the vicinity, in this case downtown Philadelphia. Mr. B and Mr. C are in the restaurant business and Mr. D is an accountant; all have at least some family in the area, who, like the entire A family, are members of St. George's Cathedral. The children attend, or have attended, both the public schools and the Greek afternoon school; some are also involved in the various Greek Orthodox youth groups. The whole extended family, then, might be characterized as typical of such Greek-American groupings.[8]

Yet if the family is typical in terms of its size, intra-familial relationships, economic status, and attitudes regarding its ethnicity, it is clearly atypical in the intensity of its exposure to the *eikonostasi* complex. Indeed, Mrs. A might be appropriately called, to borrow a term from folksong and folktale scholarship, a "star tradition-bearer"[9] with regard to the beliefs and attitudes, as well as the physical requirements, associated with the veneration of icons in the home. Her own collection of these artifacts, housed in a fairly elaborate shrine called a *parekklisi* (colloquial for *to parekklision*, "small chapel") which occupies a spacious closet of the C home, numbers some sixty items in all (see catalog) and is recognized by other Greek-Philadelphians, or at least by other members of St. George's Cathedral, as one of the largest and most elaborate house shrines within the community.

[6]Edwin C. Buxbaum, *The Greek-American Group of Tarpon Springs, Florida: A Study of Ethnic Identification and Acculturation,* Unpublished Ph.D. Dissertation, University of Pennsylvania, 1967, p. 185. Cf. also Helen C. Lauquier, "Cultural Change Among Three Generations of Greeks," *American Catholic Sociological Review,* XXII (1961), 229.

[7]James Patterson, "The Unassimilated Greeks of Denver," *Anthropological Quarterly,* XLIII (1970), 243-253.

[8]Cf. Buxbaum, pp. 179-349; Lauquier, pp. 223-232; Grace Abbott, "Study of Greeks in Chicago," *American Journal of Sociology,* XV (1909), 379-393; Theodore Saloutos, *The Greeks in the United States* (Cambridge, Harvard University Press: 1962) pp. 71-96, 310-326.

[9]Cf. Kenneth S. Goldstein, "On the Application of the Concepts of Active and Inactive Traditions to the Study of Repertory," *Journal of American Folklore,* LXXXIV (1971), 62-67.

Censor, Incense, and Religious Books on Corner of Central Table in Mrs. A's Parekklisi.

Mother-of-Pearl Nativity Scene; Bottles of Holy Water and Oil; Red 12-Petaled Flower in Brandy Snifter; Ever-Burning Electric Light.

Embroidered Icon of Crucifixion in Glass-Doored Wooden Case within Mrs. A's Parekklisi.

Pilgrimage Pieces from Mary's well in Nazareth, Church of Annunciation in Tinos, Shrine of St. Dionyseius in Zakinthos (Left to Right).

Gold and Silver-Plated Icons within Another Wooden Eikonostasi *in Mrs. A's* Parekklisi.

Apart from its size and ornate character though, Mrs. A's *parekklisi* differs little from the more usual *eikonostasi*. The latter may consist of a wooden shelf, sometimes situated above a doorway, which supports the icons, or of a more elaborate glass-doored case which contains them. Indeed, the *eikonostasi* may simply involve an arrangement of icons on a table or cabinet top. Yet, granted these minor variations, the essential physical elements required for both the *eikonostasi* and the *parekklisi* are only two: one or more icons, generally framed; and a light of some sort, which is kept burning before the icons twenty-four hours a day. In the Philadelphia community, the icons most frequently employed are the commercially printed variety, but since the questions of the types and styles of icons used, their provenance and their preparation for use constitute a major portion of this paper, consideration of the icons themselves shall be delayed for a moment. The light dutifully maintained before the icons, while generally an oil lamp or candle in Greece, is frequently an electric bulb in this country. Candles and oil lamps do occasionally appear here, but according to my informants no real preference for them seems to exist based upon religious considerations. Only the greater safety of the electric light seems a factor.

Despite this more widespread use of the electric light in the *ekonostasia* in this country, there still exists among Greek-Americans a substantial number of beliefs regarding the flickering or extinguishing of the *eikonostasi* light. Some of these have been attested by Georges, who notes that generally such accidental occurrences constitute an omen or signal an attempt by the saint represented in the icon to convey a message to the faithful.[10] While I was able to collect similar accounts from another of my informants, I was unable to elicit any such beliefs from the extended family of Mrs. A. It was suggested to me in a later discussion with the family's priest that the truly spiritual Orthodox Christian—which Mrs. A. clearly is—rarely puts any stock in such matters; only the shallower believers concern themselves with the flickering or extinguishing of the light. As the family was wholly consistent in its pronouncements on the matter over some ten hours of interviews, I am hesitant to conclude or even suggest that they were deliberately concealing what they might have considered somewhat embarrassing information from me, and I must therefore agree with my clerical counselor in placing them above such behavior. This is not to suggest that all families in the Greek community are above such beliefs, or even that this particular one is at all times, but rather to affirm the possibility of great spirituality having an affect on such behavior and to note the homogeneity of that affect over the whole family.

A similar homogeneity exists among the first two generations of the A family with regard to another custom associated with the light before the *eikonostasi*. The custom is that of keeping a bottle of holy water blessed at the Great Blessing *(Megas Agiasmos)* on the Epiphany *(Theophaneia)* in one's home only if there is a perpetually burning light there as well. No official church regulation dictates the necessity of this precondition for the possession of such holy water, but this "pious custom" has strongly influenced Mrs. A and her daughters, who all keep their small flask of the water close beside the ever-burning light of the *eikonostasi*.[11]

Before turning to the icons themselves, one further physical characteristic of the *eikonostasi* or *parekklisi* should be noted: its location in the home. In Greece, no particular place is regarded or specified as standard for the *eikonostasi*, although some import is attached in certain regions to locating it toward the east, the direction in which the star signalling Christ's birth appeared and toward which most Orthodox churches

[10]Georges, p. 49.

[11]Cf. Mary Hamilton, *Greek Saints and Their Festivals* (Edinburgh and London, Blackwood and Sons: 1910), pp. 112 ff. concerning the Epiphany; Gizelis, pp. 35-36, notes that amulets are also kept near the *eikonostasi* in the Philadelphia Greek-American community; Karanastasi, p. 236, notes that, in addition to the bottles of holy water, the plowmen of Kos keep crosses of palms, flowers from Holy Friday, the stamp used in baking the communion bread, and a repository for the wedding crowns within or near the *eikonostasi*.

Reproduction of Miraculous Weeping Icon of Panaghia from Hempstead, New York.

are oriented.[12] In the Greek-American community of Philadelphia, the situation remains much the same. Icons appear in children's rooms, dining rooms, hallways, and guest rooms, though the direction with which they are associated varies greatly.

The primary factor dictating the location of the *eikonostasi,* according to my informants, is the sacredness of the icons and the consequent need that they occupy a position of respect. Thus, the icons usually find their way to quiet, even remote, parts of the home. They are seldom kept in the kitchen or living room, where much of the day's traffic is concentrated. Nor are they to be found, at least among the A family, in a married couple's bedroom. The latter placement, Mrs. D insisted, would be most inappropriate, as this is the scene of sexual activity, And, indeed, so strong is her conviction concerning this matter that she maintains her family's *eikonostasi* in the children's room, children being associated with innocence, rather than in the master bedrom, or even in a guest room which frequently accommodates adults. This attitude conflicted rather strongly with one local clergyman's position regarding the disposition of the icons, a position which must be regarded—since there exists no written, canonical prescription on the matter within the Orthodox church—as the more or less" "official" or "high" religious position. His contention was essentially that, since icons are to be distributed so as best to facilitate prayer before them, the bedroom of a married couple is by no means an unsuitable place for them to be housed. He also noted that marital sexuality is a good and beautiful thing upon which God's blessing is to be sought, and that there is no reason to conceal it from the icons. Another local priest, however, found no inconsistency between his position—equally valid as the "high" or "official" religious position—regarding icon location and the folk attitudes toward it. Rather, he emphasized that the same sense of propriety which governs what one does in church is active in determining what behavior takes place before the icons in the home. Now both these "high" or "official" positions seem clearly to be rationalized interpretations of the folk practice in terms of the appropriate additional religious materials. The former is somewhat more authoritarian in its dismissal of the folk complex of customs and beliefs; the latter is more sympathetic, perhaps more solicitous of the folk attitudes or of the relation of the "folk" and "high" religious levels. Nonetheless, while these "official" positions may vary in their ambience, it seems reasonable to suggest that both admit—overtly or covertly—an underlying inconsistency in their relationship to the folk practice.

[12]Again, as attested by my Greek-American informants.

Puerto Rican Representation of Virgin and Child Presented to Mrs. A by Friend.

In addition to this "folk" position regarding the placement of icons being at least partially inconsistent with the "official" dictates of the church, it should be noted that it is also inconsistent with certain other "folk" practices. Most obviously, the custom of keeping the *stephana,* or wedding crowns, symbolic of a couple's deep marital unity, in or beside the *eikonostasi,* does not

Miraculous Icon, long in the family, which survived a fire with only slight damage (Note charred spot in center).

Small table beside larger central table in Mrs. A's Parekklisi.

appear consistent with the banishment of the icons from the bedroom. It would appear, thus, that disagreement and tension exist not merely between Greek "folk" and "official" religion, but within Greek "folk" religion itself. Additional comment on this matter will be reserved for the conclusion.

The broader physical features of the *eikonostasi* having been touched upon, we may now turn to a more thorough consideration of its most important element, the icons themselves. The types of icons in use in the A family, and in the larger Philadelphia Greek-American community as well, are fairly numerous. The traditional Orthodox icon, a wooden panel bearing a highly stylized representation of Christ, the *Panaghia*, or the saints,[13] appears occasionally, but not with the frequency it manifests in contemporary Greece, due to the high cost. A more highly embellished version of the traditional icon, usually covered with gold or silver plating save for the hands and face of the subject depicted, also occurs on occasion. However, by far the most common type of icon among the A family, and I believe among the members of the Philadelphia Greek-American community, is the printed variety. These are generally printed in Greece and exported to the United States, and they may bear either a reproduction of a particularly well known or miraculous icon or an image prepared for the printing. Their easy availability at Greek specialty shops and church sales in this country contributes greatly to their popularity, as does their very reasonable price.

Also contained in the A family collection, but presumably less common throughout the larger community, are embroidered icons and three-dimensional pilgrimage pieces in mother-of-pearl and artist's clay which were brought back from the Holy Land. The latter are distinctly "western" in style, clearly breaking with the two-dimensionality demanded of Orthodox representations, and recall the presence of other very "western" pieces in Mrs. A's *parekklisi*. These include a printed representation of Christ, such as is frequently found in a child's room in a Catholic home; a representation of the Virgin from Puerto Rico which a vacationing friend brought Mrs. A as a gift; a Spanish or Portuguese religious item which has the appearance of a twelve-petaled red flower sealed in a closed brandy snifter; and a circular plastic affair containing a picture of the Virgin in the center, with scenes from her life and that of her son around it.

When questioned regarding the seeming discrepancy in artistic style between these more "western" pieces and the more traditional Orthodox icons, and regarding the orientation of the various pieces toward different religious groups, Mrs. A pointed out that the individual works all represented the same Christ, the same Virgin, or the same saint. With respect to the Puerto Rican picture of the Virgin she stated, "This is *Panaghia*. They make in Puerto Rico like Puerto Rico *Panaghia* . . . One *Panaghia*, but they make that like their own . . . own dress, the clothes, the crown." Mrs. B and Mrs. C responded similarly when questioned about why the materials of which the more traditional icons are made seem to bear no great significance:

[13]Cf. Ernst Benz, *The Eastern Orthodox Church, Its Thought and Life* (Chicago: Aldine Publishing Co., 1963), pp. 3-5.

Wall hanging carrying representation of Holy Family, additional Icons, and circular portrayal of Virgin and Scenes from Her Life.

Mrs. B: Because it uh . . . as long as a saint is on there, what difference does it make what material it is, whether it's wood . . .

Mrs. C: They all represent the same thing.

Mrs. B: They all represent the same saint. The face of the saint, whether it's on wood or material, what it is, we still love him and we will pray to him, to the saint, whatever saint it is.

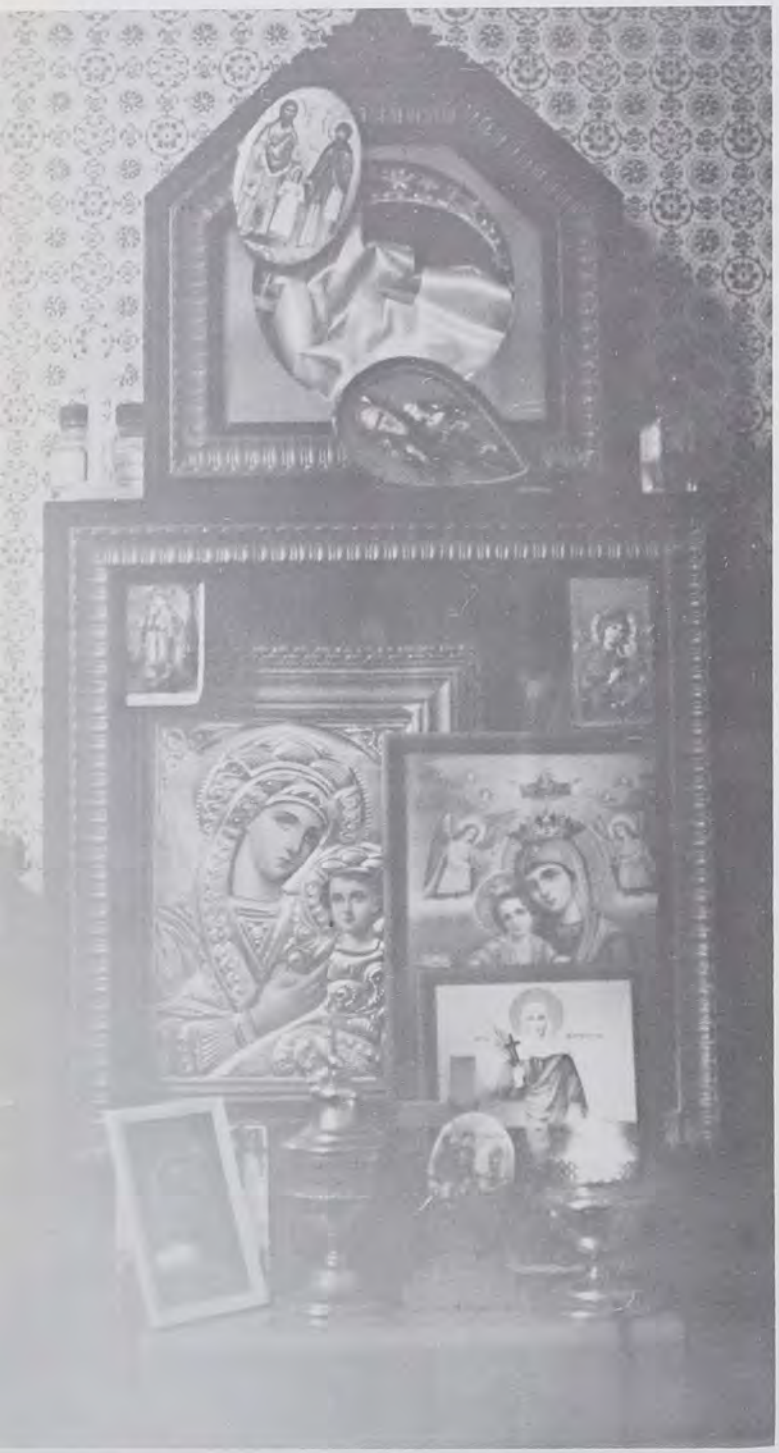
Only one icon in their possession, a picture of the Sacred Heart of Jesus given as a gift by a friend, was recognized as distinctly Roman Catholic by Mrs. A and her daughters, and while Mrs. A withheld it from her *parekklisi* she was finally prompted by a dream to install it within the shrine.[14] Thus, the members of the A family, in conceiving of the icon as essentially a manifestation of the deity or of his saints, align themselves almost exactly with the Orthodox Church's position on the subject, and demonstrate perhaps an even greater catholicity of belief.[15]

Given, then, these basic types of icons and the manner in which they function, a word should be added about the ways in which they are obtained and the method by which they are prepared for use. To a certain extent, the ways of obtaining icons for use in the home are related to the types of icons. The traditional icons, those painted on wooden panels are generally executed by monks in monasteries in Greece, and they are handed down from generation to generation within the same family. Thus, several of those in the

[14]Gregory Gizelis, "The Function of the Vision in Greek-American Culture," forthcoming in *Western Folklore,* discusses similar instances of dream and vision communication.

[15]Benz, pp. 1-20.

One of Eye-Level shelves with Icons in Mrs. A's Parekklisi.



Eikonostasi *in Home of Mrs. B, with* Stephanathiki, *the Case Holding the Wedding Crowns, atop it.*

possession of the A family were in the family for years before they were transported to this country. Traditional icons are also frequently purchased at the numerous pilgrimage places in the mother country, just as similar religious items are obtained in the Holy Land. Certain of these pilgrimage pieces carry special significance, and they shall be discussed in more detail a bit further along. Relatives in Greece, too, are occasional sources of icons, sending them as gifts to those who have come to the United States. The printed icons, as has been noted, are available in Greek specialty shops in this country and at church sales. Yet these too are frequently exchanged among friends as gifts, small ones often being given for use in the crib of a newly-born infant.[16] The more westernized pieces can be purchased at shrines, churches, and religious goods stores in this country.

The method by which icons are prepared for use in the home is a relatively simple one. The icon, whether a gift or a purchase, is taken by its owner to his or her Orthodox church and given to the priest to be placed upon the altar, or Sacred Table, where it remains for forty days. This closely parallels the sanctification procedure for certain amulets which Gizelis noted.[17] Moreover, the period of time is clearly related, as my informants recognized, to such important periods in Christ's life as the temptation in the desert and the period between the Resurrection and the Ascension; more generally, it is related to the predisposition of the Orthodox and other Christian religions to the number forty. Upon completion of this period, the icon is returned to the home and set up in the *eikonostasi.*

While, as we have seen, the varying physical types of the icons seem of no great moment to the members of the A family, and while the preparation process remains constant for all icons used in the home, the varying subjects of the icons—and their varying manifestations—are of great significance. This is principally the result of the belief of the faithful that specific figures, or specific manifestations of specific figures, are more efficacious in bringing about the fulfillment of certain prayers than other figures, since they have a greater capacity for instilling faith in their supplicants than do their lesser fellows.[18] Two fundamental elements underlie this belief in the greater efficacy of certain figures: 1) the highly-developed and centuries-old system of specialized function attributed to the various saints, which supports with evidence from tradition the conviction that, in his or her particular sphere, a given saint is generally most effective;[19]

[16]Certain of these small representations, termed "icons" by my informants, were considered "amulets" by Gizelis' sources. Cf. Gizelis, "Amulets," p. 33, especially the illustration.

[17]Gizelis, "Amulets," p. 35.

[18]My informants emphasized this rationale heavily: that the faith generated by the saint is the only actual force of importance in the accomplishment of the prayer of petition. While I believe my informants do in fact conceive of the dynamics of this prayer-response complex in these terms and are not merely employing this schema as camouflage for a belief in certain powerful saints or their icons, as in other words a device for avoiding possible friction or tension with the "official" church, I cannot be certain that the less spiritual of their fellow church members share their "officially acceptable" conceptualization or their ability to work on this level of abstraction.

[19]Cf. Hamilton, *Greek Saints*, pp. 12-38.

2) the affirmations of others, or one's own individual experiences, attesting the miraculous or otherwise special powers of certain figures.

An excellent example of the influence of the first of these contributing factors is the persistence in the family of Mrs. D of the practice of invoking St. Nikolas' protection for the home whenever it is to be left unoccupied. In the native Epirus of Mrs. D's parents or perhaps simply in their native village of Ioannina, St. Nikolas, who elsewhere in Greece is considered the patron of sailors,[20] was regarded as the guardian of the home, and so effective has been his stewardship of the family property that, even in the United States some thirty-five years later, he continues to be called upon to fulfill this role.

Similarly, the close relationship between patron saint and namesake, symbolized among the Greeks by the celebration of one's nameday rather than one's birthday, might also be classed as a traditionally efficacious source of the fulfillment of one's prayers. As a result, an icon of the patron of each member of the family usually occupies a place in the *eikonostasi* of a Greek or Greek-American home, and each individual feels a special ease in approaching his patron.

In roughly the same sense, the women of Greece and of Greek heritage feel a special closeness to the *Panaghia,* and her icon graces virtually every home in the mother country and in the Philadelphia Greek-American community.[21] As my informants put it:

Mrs. C: The average home would have the patron saint and maybe . . .

Mrs. B: A couple more . . .

Mrs. C: . . . a few more, or some saint that really had a miracle in their town or in their family that they pray to, or if they had a certain sickness in their family and they pray to a certain saint, they would have, you know, a replica . . .

Mrs. B: But they all have an icon of *Panaghia.* That is in every home. An icon of Jesus with *Panaghia . . . Christouli,* the Infant Jesus, and *Panaghia.* This is a must in every home. Plus all the other saints and everything. But this comes first.

If the motivating factor in calling upon certain saints, one's patron, or the *Panaghia* is a time-honored sense of appropriateness and a certainty that one's prayers will be answered, the motivation in other instances is a genuine sense of awe before the miraculous power of a given saint or, more rarely, before the miraculous quality of a given icon. As Mrs. C commented:

> Your faith is stronger when you have certain meaning attached to that icon. Say this particular icon came from way from your grandmother's time where it had performed a miracle in your family.

[20]Cf. Hamilton, *Greek Saints,* pp. 29-31.

[21]As attested by my informants. Also, cf. Richard and Eva Blum, *The Dangerous Hour, The Lore of Crisis and Mystery in Rural Greece* (New York: Chas. Scribner's Sons, 1970), pp. 322-323.

Icon Cross, Icon Prints, and Cabinet Icon.

> You would have a certain attachment to this because it has a certain meaning for the icon. Whether it's on paper or not doesn't mean anything, but the fact that it did perform a miracle or the fact that you have . . . somebody brings a special icon from Tinos where all the miracles are performed, this would have more meaning to you, and you would have a little more tendency to pray stronger to something like that because you know at this particular place in Greece, at Tinos, happened so many miracles that you would feel that you have faith in that, that it would perform a miracle . . . The faith is stronger because certain things have certain meanings to them.

While this assertion accurately represents Mrs. C's own feelings and those of her mother with regard to a very old icon, long in the family, which "miraculously" survived a fire, and with regard to several pieces from Tinos, it does not hold true for the entire second generation of the A family, nor indeed for the third. Mrs. B differed clearly with this opinion in her statement that "I believe *Panaghia* is *Panaghia,* and I pray to *Panaghia.* It doesn't matter where *Panaghia* is." Her daughter, too, took exception to the special character of certain icons and of certain figures, and echoed her mother's pronouncement: "I believe that one picture of *Panaghia* is just the, you know . . . one icon of *Panaghia* is just the same, whether it be in your house, whether it be in the church, or wherever it's from." Thus, there is variation between a position tolerated by the Church—the special valuation of certain iconographic representations of specific sacred figures—and one almost identical with the Church's teachings—that all representations of a given figure are equivalent—within the same family. Since the former position has probably enjoyed currency within

the family for some time, the source of the latter must be sought somewhere outside—possibly in the influence of a local priest, or even in the larger religious or even purely social community.

Up to this point, the beliefs and attitudes surrounding the *eikonostasi* and its elements have been our main concern in this short essay. A word remains to be said about the ritual associated with the *eikonostasi* before the general implications of all the above data are considered. The small amount of ritual behavior linked to the icons, like the beliefs regarding the comparative efficacy of certain saints or their representations, seems to vary considerably from generation to generation. Mrs. A prays in her *parekklisi* daily, generally reciting the particular prayer to the saint of the day; she kisses one or several of her icons morning and night, and crosses herself three times upon entering and leaving her small chapel; she incenses her *parekklisi* and all the other rooms of her daughter's home at least once a day, as indeed she does when she visits the homes of her other daughters. Her daughters kiss the icons only when they pray, which is not as regularly as their mother; all use the sign of the cross, but at least one is not convinced of the necessity of repeating it three times; and none of them employ incense themselves in blessing their homes—that is left to their mother on her frequent visits. The children appear to follow their parents' example to a great degree, though the fact that one of the younger girls "likes the smell" of the incense, and that the priests have urged the members of the young people's organizations to incense their homes at least monthly, has caused a slight upswing in the amount of house-blessing currently conducted. Here again factors outside the home, together with the varying phases of youthful development, would appear responsible for the modification of behavior related to the icons. Any precise determination of the exact nature or identity of these factors, however, will have to await further detailed research.

What, then, does all of this suggest? On the most minimal level, the fact that icons are handed down from generation to generation within a family; the fact that the manner of displaying the icons follows an essentially familial pattern, to the extent among the A family that the *eikonostasia* are situated in the children's room in each home; the fact that some, if not all, of the fundamental beliefs and attitudes regarding individual icons, their meaning and use remain consistent across two and even three generations of the same family, all suggest the important, if not dominant, role of the Greek-American extended family in the formation and maintenance of this particular folk-religious complex. The importance of the family in generating and preserving certain folk-religious phenomena is not a new idea. The Blums have written:

> . . . the steadfastness of informal religious practice in the home can be presumed, and it is in these family attitudes and services rather than in the institutional ones that one expects the greatest degree of continuity.[22]

However, no confirmation of these "presumptions" and "expectations" regarding the role of the family in Greek folk religion has been forthcoming. It is hoped, therefore, that this paper and whatever further research it occasions will be accepted as evidence in support of these long-standing suspicions.

On a somewhat more abstract level, several suggestions regarding the nature of Greek-American folk religion—and perhaps of all folk religion—might be drawn from the material above. First of all, the idea that some degree of tension exists between the "official" religion, in this case the Greek Orthodox Church, and its "folk" counterpart[23] is clearly confirmed by the disagreement of the two levels over the necessity of having an ever-burning lamp in the home in order that water from the great Blessing on the Epiphany might be kept there, and over the practice of situating the *eikonostasi* in an adult's bedroom. That this disagreement is mild at worst, however, may well be the result of the Orthodox church's long-standing acknowledgement of the role of sacred tradition in its liturgy and theology, an acknowledgement which makes such additional accretions easily tolerable. Secondly, the fact that certain positions held on the "folk" religious level disagree not only with those of the "high" religion, but with other "folk" religious positions as well, suggests the operation of the two systems on different bases. Thus, the "high" religion functions on the basis of an all-encompassing and wholly integrated theological and ethical framework, while the "folk" religion functions via a seg-

[22]Blum, *The Dangerous Hour*, p. 326. Hamilton, pp. 9-11, made a similar point some sixty years earlier.

[23]Don Yoder, "Official Religion Versus Folk Religion," *Pennsylvania Folklife*, XV: 2 (1965-1966), 37 ff.

General View of Icon table with framed Icons on Wall.

Details of framed Icons showing continuing use of Byzantine Icon Style.

mented and frequently contradictory system of attitudes, beliefs and narratives.[24] The two distinctive approaches taken by the practitioners of the "folk" and the "high" religion to the question of the propriety of locating the *eikonostasi* in an adult's bedroom provide an excellent example of these variant systems at work. Thirdly, despite the apparent contradictions on the level of folk-religious belief, there exists an overriding *formal* congruence between many of the behaviors attached to the use of these folk-religious artifacts. The fact that several types of house icons are acceptable to Greeks and Greek-Americans without distinction, just as several types of votive offerings or amulets prove satisfactory; the fact that icons to be used in the home, votives, and amulets are all subjected to similar sanctification procedures; and the fact that both the icons and the amulets can be and are given as gifts, all stand as evidence of this point. It might be suggested that such consistent usage of these material-cultural folk-religious artifacts is the result of an underlying pattern of behavior. Indeed it might further be suggested that this "standing pattern of behavior"[25] serves as both a model for the maintenance and a grammar for the generation of similar practices.

Finally, on the heuristic level, the notion that the family may indeed be the heart of Greek-American folk religion suggests a simple plan for investigating the character and functioning of the folk religion of any large community. For, if the high or official religion, here the Greek Orthodox, is accepted as constant for the community, with allowable variation for the influence of individual clergymen at various churches, a researcher could easily plot the network of interactions giving rise to and sustaining the particular folk-religious beliefs and practices of any given individual. This could be accomplished by beginning with the family and its beliefs and practices, and then working through the extended family, the social community, the ethnic group, and as in the case of this study, the host culture in search of the sources of any intra-familial discrepancies. Thus, a hierarchy of those groups having most effect upon the nature of a folk-religious complex might also be established. That such a procedure, providing systematic access to the folk religion of a given community, would prove more valuable and accurate in appraising the religious character of that community than the application of such criteria as church attendance and membership in church-affiliated organizations frequently employed by anthropologists seems likely.[26]

[24]Cf. Ichiro Hori, *Folk Religion in Japan: Continuity and Change* (Chicago: University of Chicago Press, 1968), p. 1.

[25]Roger G. Barker, *Ecological Psychology* (Stanford, California: Stanford University Press: 1968), p. 1-18.

[26]Cf. especially Buxbaum, pp. 304-349; Lauquier, pp. 227-228; and Patterson, pp. 243-253.

Detail of Metallic Icon.

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Catalog of the Icons in the Parekklisi of Mrs. A

1	Virgin	Paper	Puerto Rico	1960
2	S. Eleutherios	Paper	Greece	1962
3	S. George (Epirus)	Paper	Greece	1960
4	S. Savvas	Paper	Jerusalem	1968
5	Panaghia and scenes from her life	Paper	Gift: USA (?)	1960
6	Resurrection	Painted wood panel	Painted by a friend: USA	1960
7	Panaghia Zoodhoxou Pagis	Etched (?) or sketched on material	Gift from father: Greece	1920
8	Three Hierarchs	Paper	Greece	1962
9	Transfiguration (Metamorphosis)	Paper	Greece	1962
10	Panaghia at her Presentation	Paper on wood	Jerusalem	1968
11	Crucifixion	Paper	Greece	1942
12	The Anargyroi, Cosmas and Damianos	Paper	Greece	1932
13	Crucifixion	Embroidered	Sewn by a prisoner in Greece	1932
14	Descent to Hell	Paper	Greece	
15	Veronica's Veil	Paper	New York	1932
16	Baptism of Christ	Paper	Gift from Ukrainian neighbor	
17	Panaghia	Paper	Gift from Ukrainian neighbor	
18	Panaghia	Paper	Greece	
19	S. Luke of Monasteries	Paper	Greece	1957
20	The Two Theodores	Paper	Greece	1957
21	SS. Raphael, Nikolas, Irene	Paper	Greece	
22	Archbishop S. Modhestos	Paper	Jerusalem	1968
23	Christ in Gethsemane	Paper (3-D)	Greece	
24	S. Nektarios (2)	Paper	Greece	1966
25	Last Supper	Paper	Wildwood, N.J.	
26	Panaghia	Paper	Kithara, Greece	1960's
27	S. Thecla	Medallion	Greece	
28	S. Anastasia	Medallion	Greece	
29	S. Zenia	Painted wood panel	Greece	
30	S. Marina	Painted-silver plated wood panel	Greece	1957
31	Christ at the Door	Paper	Philadelphia	
32	S. Theodoros of Mytilene	Medallion	Mytilene, Greece	1968
33	S. John Prodromos	Paper	Greece	1957
34	Panaghia	Paper	Greece	1957
35	The Entombment	Paper	Greece	1957
36	Angel Michael	Paper reproduction of original	Greece	1962
37	S. Spiridon	Paper	Kerkyra (Corfu)	1957
38	S. Demetrios (2)	Painted-silver plated wood panel	Salonica, Greece	1971
39	S. Dionysius	Copper	Zakynthos	1968
40	Christ	Paper reproduction	Greece	1962
41	Twelve Apostles	Paper	Greece	1962
42	Panaghia	Paper	Agia Oros, Greece	1962
43	The End of the World	Paper	Greece	1961
44	S. Nikolas	Paper	Greece	1947 - 1952
45	Entry into Jerusalem (Baion)	Paper	Greece	1957
46	S. Stephanos	Paper	Greece	1957
47	S. Xaralampos	Paper	Greece	1957
48	S. Michael	Paper	Greece	1957
49	Visitation	Paper	Jerusalem	
50	Panaghia	Paper	Gift from Ukrainian neighbor	
51	Christ, SS. John Prodromos, Paul, Peter, Nikolas, Demetrios, George, Mavra	Paper reproduction of original	Greece	1962
52	Christ	Painted wood panel	Greece	1955
53	Annunciation (Evangelismos)	Painted wood panel	Gift from Tinos	1952 - 1957
54	Presentation	Paper	Greece	
55	Weeping Panaghia, Hempstead, N.Y.	Paper	New York	1950's
56	Sacred Heart of Jesus	Painted on paper	Gift from Philadelphia	1968
57	S. Barbara	Paper	Greece	1957
58	S. Phanourios	Paper	Greece	1957
59	S. Panteleimon	Paper	Greece	1957
60	S. Thomas (the Doubtful)	Paper	Greece	
61	S. John Chrysostom		Gift from Greece	
62	Panaghia	Paper	Greece	
63	Holy Family	Carpet	Philadelphia	1960's
64	Grave of Christ	Mother-of-pearl	Jerusalem	1968
65	Nativity	Mother-of-pearl	Jerusalem	1968
66	Church of Annunciation at Tinos	Mother-of-	Tinos	1971

The Peter Colley Tavern, 1801-1854

By RONALD L. MICHAEL and RONALD CARLISLE

As part of an ongoing study of taverns or inns along the National Road in Pennsylvania, the California State College Archaeological Field School spent the 1972 summer at the Peter Colley Tavern in Brier Hill, Fayette County, Pennsylvania. The Colley Tavern was selected for study for basically the same reasons that the Searight Tavern, also along the road between Uniontown and Brownsville, Pennsylvania, had been used as an excavation site in 1970.[1] Little information was available concerning life along the National Road, architectural data on early western Pennsylvania building was lacking, and scant material remained on 19th Century folk crafts in Southwestern Pennsylvania.

[1]Ronald L. Michael, "The Searight Tavern on the National Road: An Archaeological View," *Pennsylvania Folklife,* XXI:1 (Autumn 1971), 26-27.

A couple of books have been written about the road itself, and the histories of Fayette and Washington Counties contain references to various phases of activity related to the road, but the majority of the published material was compiled during the last years of the 1800's and therefore lacked data which was considered common knowledge of the period.[2] Few authors of the late 19th Century or earlier times ever considered dis-

[2]Thomas B. Searight, *The Old Pike: A History of the National Road with Incidents, Accidents and Anecdotes Thereon* (Uniontown); P. D. Jordan, *The National Road* (Indianapolis: Bobbs - Merrill Co.); Boyd Crumrine, Ed., *History of Washington County, Pennsylvania* (Philadelphia: L. H. Everts, 1882); Earle R. Forrest, *History of Washington County, Pennsylvania* (Chicago: S. J. Clarke, 1926); Franklin Ellis, Ed., *History of Fayette County, Pennsylvania with Biographical Sketches of Many of Its Pioneers and Prominent Men* (L. H. Everts and Co., 1882).

Figure 4a. View of the front of the Peter Colley Tavern, ca. 1890's.

cussing who had built the taverns, who had acted as innkeepers, how many and what kinds of buildings surrounded the taverns, how many wagoners stopped at the tavern stands, how affluent the tavern owners and innkeepers were, what kinds of furnishings the taverns had, and what kinds of dinner service and glassware were used at the taverns.

This type of material is almost totally absent and must be compiled through a variety of means including examination of available historical records, study of existing structures, comparisons of data from taverns in other regions, and archaeological excavation. This report is an attempt to demonstrate what types of data an historic sites archaeologist can and should acquire both preliminary to and during a field session. In particular, tavern stand building locations, tavern building architectural features, duration of tavern usage, ownership of tavern property, and relative affluency of innkeeper and tavern owner will be discussed.

Peter Colley, born on February 2, 1757, of Irish parents aboard ship outside the port of Philadelphia, came to Fayette County at least by the late 1780's. On February 2, 1786, he took out a warrant with the Commonwealth of Pennsylvania for a 221 ¾ acre tract of land known as "St. Peters" (Figure 1). That was the land which he later purchased for 4 shillings 6 pence, and on which he and his wife Hannah built, or had built, their home in 1796 (at least that is what a renewed cornerstone indicates).[3] Whether they built the structure with the intent of using it as a tavern is unknown since stone tavern design differed little from stone house architecture in the area. However, by 1801 they were keeping an inn. They continued the practice through 1824, possibly stopping because of their age. Peter Colley would have been 67 years old in that year and keeping a tavern was an exhausting routine. Since all of his family was grown and had probably moved away from home, the Colleys possibly could not continue to operate the inn. Also, as will be suggested shortly, they were not in dire need of continual income from the tavern.

In 1842 the tavern was re-opened by George Colley. He was the youngest of Peter Colley's six sons and was born tenth out of eleven children, but he inherited the original 221 ¾ acres plus 117 ¼ contiguous acres which his father had acquired prior to his death. George Colley was able to maintain the tavern until 1854, about one year after the Baltimore and Ohio and the Pennsylvania railroads connected the eastern seaboard with the West. The Pennsylvania Railroad had reached Pittsburgh, Pennsylvania, on December 10, 1852, and the Baltimore and Ohio Railroad connected with Wheeling,

[3]Lenore Davidson Colley, William Brownfield Colley Family Bible, Uniontown, Pennsylvania, 1972; Fayette County, Surveyor's Office, File C, p. 424; Fayette County, Recorder's Office, Deed Book 270, p. 208.

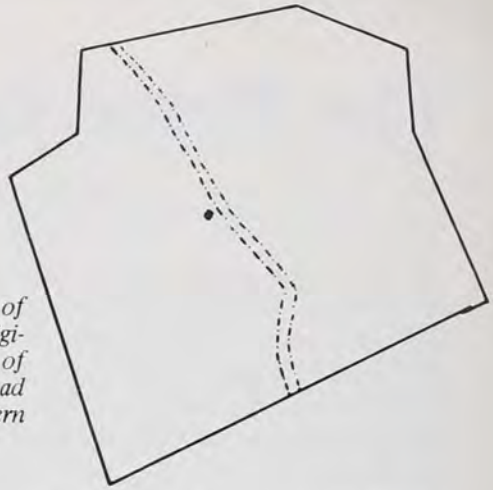


Figure 1. Map of Peter Colley's original 221¾ acres of land. National Road and Colley tavern are shown.

West Virginia (then Virginia) on January 1, 1853. The tavern closed after having only two owners and two innkeepers.[4]

The fact that it had operated only under the owners' direction was unique for those taverns between Uniontown and Brownsville. Of the nine taverns that graced that stretch of the National Road and its predecessor, the Burd Road, it was the only one to be solely operated by its owners. At the other extreme was the Searight Tavern which was managed by its owners only seven years during its fifty year history. Why some owners chose to operate their business personally and others chose to engage innkeepers cannot be answered. Possibly some owners, like William Searight and his heirs, had other business interests and received only a portion of their income from their tavern interests. Others, like the Colleys, basically derived their income from their taverns.[5]

That owning and operating a tavern was profitable might be suggested in several ways: volume of traffic across the National Road, occupational taxes on innkeeping, amount of land Peter Colley was able to acquire while functioning as an innkeeper, and the number of taverns Peter Colley owned.

[4]Fayette County, Commissioners' Office, Property Rolls, Redstone Township, 1799-1882; John F. Stover, *American Railroads* (Chicago: The University of Chicago Press, 1961), p. 41; Edward Hungerford, *The Story of the Baltimore and Ohio Railroad, 1827-1927* (New York: G. P. Putnam's Sons, 1928), p. 264.

[5]Fayette County, Commissioners' Office, Property Rolls, Menallen and Redstone Townships, 1801-82; Michael, pp. 28-30.

Year	Mean Township Occupational Valuation	Median Township Occupational Valuation	Occupation - Valuation for Colley	Standard Deviation for Population Statistics	Number of Township Residents Taxed
1824	$ 107.55	$ 100.00	$ 200.00	47.23	206
1842	$ 75.03	$ 80.00	$ 125.00	25.55	190
1845	$ 76.75	$ 75.00	$ 120.00	23.56	240
1850	$ 82.72	$ 75.00	$ 125.00	26.59	243
1854	$ 65.58	$ 50.00	$ 100.00	32.02	165

Figure 2. Population Data for Redstone Township.

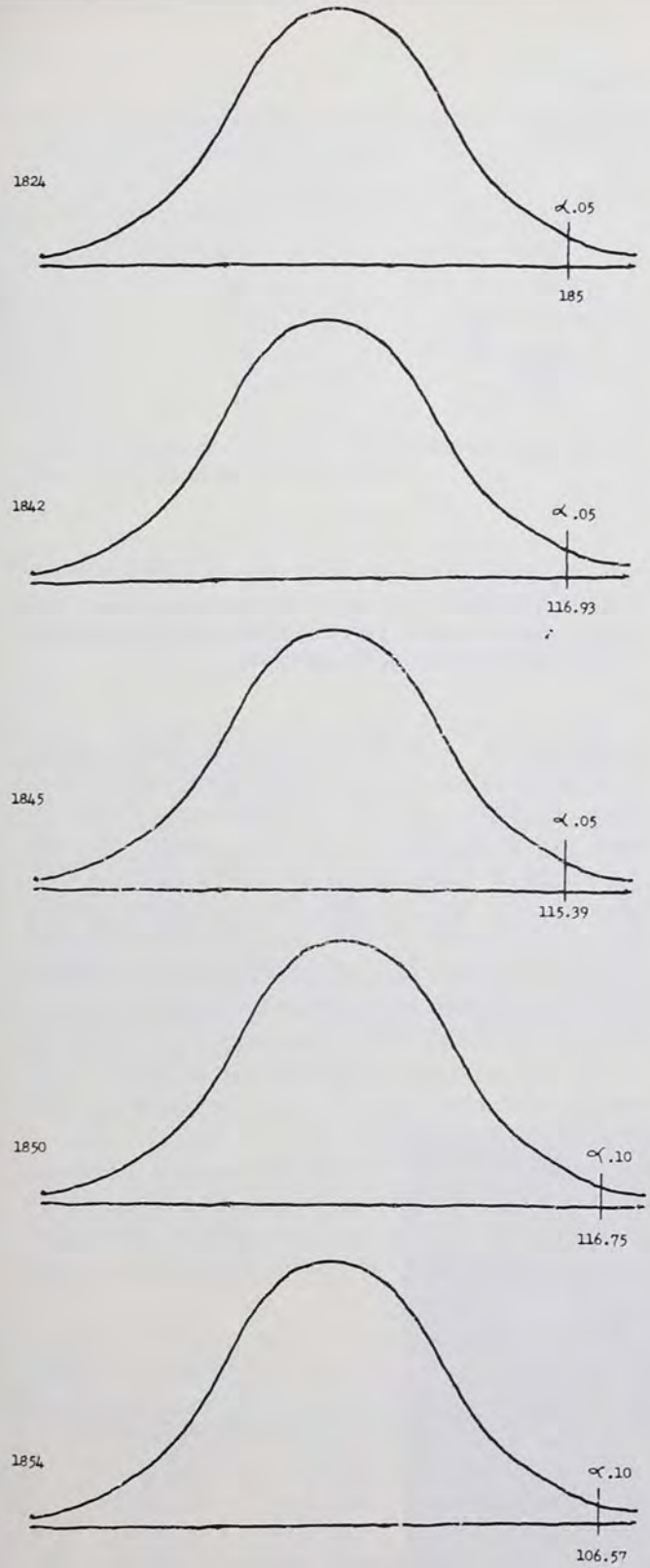


Figure 3. Confidence Test Data

The National Road, which had been opened to freight and passenger travel through Pennsylvania in 1818, carried increasing payloads until about 1850. Precise traffic figures were not available for the stretch of the road from Uniontown to Brownsville, but Monongahela River slackwater navigation passenger data was available for the trip between Brownsville and Pittsburgh from 1845, the year the system was opened, through 1852, the last year before the railroads replaced the National Road as transportation links to the West. The number of through, not way passengers, was as follows.[6]

1845 – 22,727
1846 – 34,984
1847 – 45,826
1848 – 47,619
1849 – 35,158
1850 – 38,988
1851 – 32,115
1852 – 25,613

283,030

Inasmuch as the road supposedly was used even more heavily for freighting than for passenger travel, these statistics should be proof of the expansive nature of tavern business along the segment of the road in question. As the railroads pushed west and neared Pittsburgh and Wheeling, river travel and presumably road business began to drop. But prior to that time, during the mid-1840's, traffic volume along the road increased at a rapid pace.

If the volume of traffic along the road is not convincing of the profitability of keeping an inn, Peter and George Colleys' annual taxation as innkeepers at a rate often far higher than the average person in the area is additional proof of the value of keeping a tavern. To prove that statement, Peter and later George Colley were compared statistically with the adult population of Redstone Township where they resided. First, the annual occupational tax valuation of each taxable inhabitant of Redstone Township for 1824, 1842, 1845, 1850, and 1854 was compiled. (Data earlier than 1824 was rejected because the township's geographical boundaries were changed shortly prior to that year. Otherwise, data was compiled for as nearly to a five year interval, during the time period when the tavern was operating, as possible). From that data, the mean and median occupational tax valuation for the township and the standard deviation of the data spread was calculated. Finally, the occupational tax valuations of the Colleys were compared to the resulting data. To find out whether the Colleys deviated significantly from the total population, a confidence test was performed (Figure 2).[7]

In each of the years tested, the Colleys were assessed as innkeepers above the mean and median valuation of the population. Likewise, their percentile ranking in respect to the populations remained high. The real test, however, of how significantly they, as innkeepers,

[6]Ellis, p. 265.
[7]Fayette County, Commissioners' Office, Property Rolls, Redstone Township, 1801-39.

Figure 4b. Artist's view of the northwest side of the Colley Tavern as it looks today.

differed from the population came after the standard deviation of the population was calculated and a test of significance was performed to ascertain at what level of confidence they differed from the majority of the township residents. That test showed that in 1824, 1842, and 1845 they differed significantly from the population, which was composed nearly exclusively of artisans, craftsmen, farmers, and laborers, at the .05 level of confidence. In 1850 they varied at the .10 level of confidence. But, in 1854 they failed to meet either test (Figure 3).

Therefore, it seems reasonable to conclude that during the years of greatest activity along the road, innkeeping, at least for the Colleys, was a worthwhile occupation. Likewise, since during the 19th Century socio-economic status and relative affluency were identical to the monetary valuation of a person's occupation, with the probable exception of teachers and ministers, the Colleys as innkeepers were highly respected citizens. Further, examination of the data for innkeepers and the general population at nine taverns between Uniontown and Brownsville indicates that it will probably yield comparable results. If that is proved, at least along the National Road in Pennsylvania, innkeeping was a time-honored and monetarily rewarding profession.

But, as still further proof that innkeeping was a profession worth emulating, Peter Colley's real estate holdings should be examined. At the time of his death on March 28, 1838, he held title to nearly 800 acres, 3 taverns and several sets of farm buildings.[8]

As already indicated, George Colley inherited the tavern, which his father called his "plantation home", and the tract of nearly 339 acres which surrounded the tavern. Beginning in 1842 he reopened the tavern and continued its operation until 1854 when diminished busines forced him to close.[9] From that time until his death on August 5, 1865, he continued to farm the land.

After his seven children could not agree to a division of the property, it was sold to James C. Higinbotham

[8]Fayette County, Register of Wills Office, Will Book 2, Volume 1, p. 159; Colley.

[9]Fayette County, Commissioners' Office, Property Rolls, Redstone Township, 1843-55; Colley.

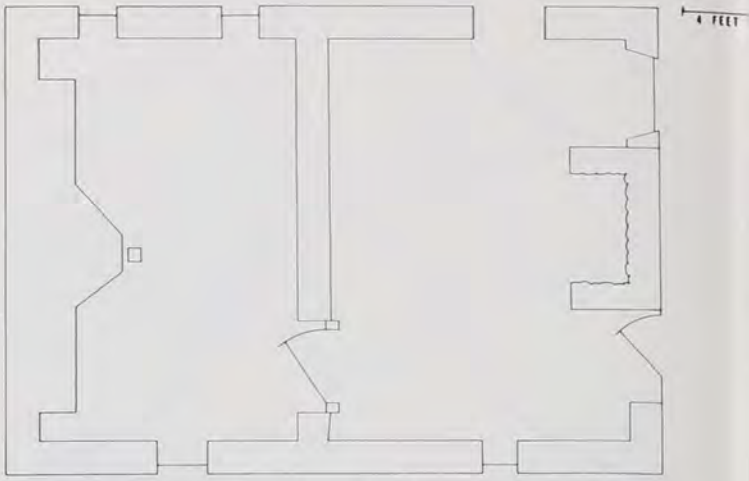


Figure 5. Original floor plan of the basement of the Colley Tavern. Note the large fireplace at one end and the corner fireplace support pillar at the other end.

for $20,539.75. A $6,722.95 lien was placed against the property at that time as a dower for George Colley's widow, Elizabeth; she was to receive semi-annual interest payments from the dower. However, the sale of the land to Higinbotham must have been for convenience. On April 6, 1866, less than seven months after the September 13, 1865, meeting of the Orphan's Court had directed the sale, to Higinbotham, Colley's widow, his daughter Hannah and her husband Solomon Crumrine repurchased 177 acres and 19 perches of the original 339 acres for $12,044.07; the $6,722.95 dower was part of that purchase. Then on December 28, 1868, Elizabeth Colley sold her share of the 177 acres to Solomon Crumrine for $500.00 but retained the dower. Hannah Crumrine died on January 13, 1871, and left her share of the 177 acres to her children, William H. Crumrine and Mary Elizabeth Crumrine, not her

Figure 6. Artist's concept of the original back side of the Colley Tavern.

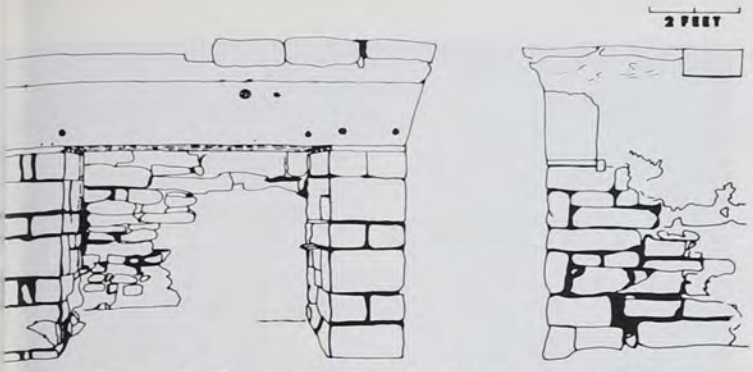


Figure 7. Front and side view of the basement kitchen fireplace. Note the large wooden mantel.

husband Solomon. In 1880, Solomon Crumrine was able to file a quit-claim to his son William's share, but nowhere is it recorded whether Mary Crumrine ever gave up her claim to the land although she presumably did.[10]

Here ended Colley ownership of the tavern stand property; in approximately 1880 Solomon had bought out the last direct Colley descendant. After that, the land was further divided. On July 14, 1880, Davis Woodward purchased a tract of 98 acres including the old tavern stand. The duration of his ownership was short as he died sometime during 1881 or early 1882.

[10]Fayette County, Recorder's Office, Deed Book 40, pp. 444, 446, 447, 448, 450; Deed Book 31, p. 173; Fayette County, Register of Wills Office, Orphans Court Docket No. 7, p. 106, No. 10, p. 327. Fayette County, Recorder's Office, Agreement Deed Book 2, p. 554.

Upon his death, the 98 acres was inherited by his son D. Demsey Woodward.[11] It was he who then sold the land to the Brier Hill Coke Company. Later yet, it was sold to Charles Parker, Brier Hill, Pennsylvania, who is attempting to develop under Title VII—Housing and Urban Development Act of 1970, U. S. Department of Housing and Urban Development, "New Town" Brier Hill. Plans for developing a town of 20,000 include restoration of the tavern and reconstruction of its outbuildings. It is partially with that objective in mind that the following architectural study is presented.

Architecture of the Tavern

In terms of architectural construction, the Colley Tavern betrays little evidence that its walls once echoed with the laughter of wagoners heady with too much ale, or that stories of broken wagon wheels, muddy and impassable roads, and the price of bacon and tobacco once formed main topics of conversation. The intact walnut bar and the large cooking fireplaces in the basement alone bear witness to the building's use as a tavern—in all other architectural detail it strongly resembles stone house architecture of the period. It is, in fact, this lack of distinction that is the building's most distinguishing characteristic, and this deeply reflects the fact that it must be considered not only as a wagoner's tavern but the home of Peter and Hannah Colley and their eleven children as well. As pointed

[11]Fayette County, Recorder's Office, Deed Book 40, p. 453; Fayette County, Register of Wills Office, Will Book 5, p. 358.

Figure 8. Basement or cellar window showing radiating and keyed stone lintel.

out previously in this article, George Colley, youngest son of Peter Colley, reopened his father's home as a tavern in 1842, eighteen years after it had last been used for that purpose. Like his father, he reared his seven children there, and therefore the Colley Tavern was never used as a tavern alone but always as a tavern-home. This situation contrasts sharply with that found at the Searight Tavern a few miles closer to Uniontown which was the historic project of the 1970 California State College Summer Field School, as reported in the Autumn 1971 issue of *Pennsylvania Folklife*.

The Colley Tavern as it stands today is an L-shaped structure of fourteen rooms in addition to an attic in that portion of the building which fronts on Route 40 (Figure 4). As closely as can now be determined, the tavern was constructed in two major building phases. The original tavern is believed to have consisted of that portion of the present structure that parallels Route 40, This part of the building consists of two large basement rooms (Basement Rooms 3 and 4), one of which (Basement Room 3) was found to contain the large walk-in cooking fireplace that is one of the hallmarks of road taverns (Figure 5). These two rooms were apparently built into a low earthen bank and their northeastern walls are now completely subterranean. This perhaps was not always the case, however. Each of the two rooms contains outlines of windows which were eventually blocked with dressed sandstone. Above these outlines, the original lintels are still in place. It is possible that these windows were at one time above ground but that the building of the original National Road which opened in front of the Colley tavern in 1818, necessitated sufficient road grading close enough to the house to warrant blocking the widows. It is also possible that these windows had been put into wells and that they were always at least partially subterranean either at the time of the original National Road's construction or at the time of the addition of the porch to the front of the house, probably sometime in the 1880's or 1890's. In regard to well windows at this time period, it should be noted that the Robert Johnston Tavern, seven tenths of a mile southeast of the Colley Tavern, exhibits one extant well window. From all architectural indications, the Johnston Tavern's construction may pre-date that of Colley's Tavern and therefore this architectural technique was apparently well within the repertory of late 18th and early 19th Century stonemasons and architects.

Basement Room 3 currently has but one exterior exit, a doorway facing northwest which when constructed had a one piece sandstone lintel. The original door dimensions of 60″ in width by 70″ in height have been narrowed at some time to the present door dimension of 38½″ by 69″. At some point over the years the one piece lintel has cracked into two uneven pieces. The door frame of the present door runs directly beneath this crack so the door may have been narrowed in an

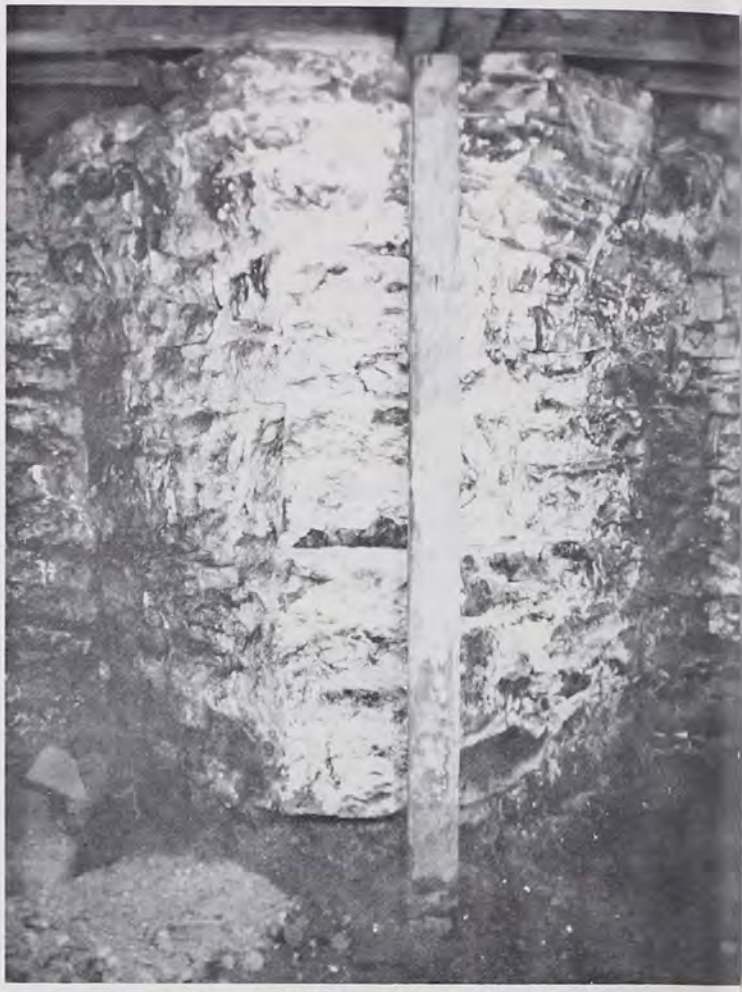


Figure 9. Support pillar for original corner fireplaces.

attempt to buttress the sagging door frame. Prior to the construction of the stone addition, Basement Room 3 had a southwestern exterior exit as well (Figure 6). The original dimensions of the doorway were 51″ in width by 79″ in height. The exit, which was narrowed presumably at the time of the building of the stone addition to its present 35″ by 75″ dimensions, has a keyed arch lintel, which is one of the only two such applications of this technique to exterior doorways to be found in the building. The outstanding feature of Basement Room 3 is the large cooking fireplace built out from the northwestern wall of the room (Figure 7). The quarried sandstone that form the walls of the fireplace is surmounted by a one piece wooden lintel 116″ in length, 17″ in height and 13½″ in depth. The firebox opening measures 72″ in width, 57″ in height and 32″ in depth. Much of the back wall of the firebox has collapsed, and the flue has been blocked with a large metal sheet supported by narrow-gauge railroad rails. In the right support column of the fireplace the crane supports are still in place, solidly mortared into the column. They were the only examples of any cook-

ing apparatus discovered in the basement kitchen. Just to the left of this fireplace, in the northwestern wall, is the kitchen's only existing window. The double hung six-over-six sash window had apparently escaped the mid-19th Century remodeling of the original tavern that probably took place at the time the stone addition was built. The reason for this seems clear enough. The wall underneath this window had collapsed and the window had dropped several inches. Rather than attempting to remove the window and replace it, a tricky procedure which might have caused the collapse of the whole corner of the building, a wooden lintel was added above the window to serve the same function that the window frame's horizontal top bar had once served, i.e., to hold the stone above it in place. This is the only example of a lintel over a window in the northwest wall of the original tavern. The glass panes in this window are of two different sizes. Those in the upper sash measure 9 ¼″ in width and 10 ¼″ in height while those in the lower sash measure 8 ¾″ by 11 ½″.

Basement Room 4 is entered by ascending one step from Basement Room 3 and passing through a frame doorway measuring 48″ in width by 60″ in height. The two basement rooms are separated from each other by a sandstone floor to ceiling wall that also helps to support the broadaxed center support of the original house which measures 7 ½″ in width and 9 ½″ in height. In addition to the previously mentioned enclosed window in the northeastern wall of Basement Room 4, a second enclosed window was discerned during the course of the excavation. This window, measuring 32″ in width by 25″ in height, was located in the southwestern wall of the room. Unlike its counterpart across the room, this window apparently was always entirely above ground. It is presently located underneath the wooden porch attached to the stone addition. The existing porch is constructed entirely with modern wire nails and milled lumber and almost certainly dates to the 20th Century, but there is no reason to believe that the stone addition was ever without a wooden porch of some type. The window was probably sealed at the time of the construction of the stone addition. Interestingly enough, this window was built with a keyed arch lintel. In addition to the blocked windows Basement Room 4 has one existing window which is also located in the southwestern wall of the tavern but well away from the wooden porch. It, too, has a keyed arch lintel and measures 42″ in width by 26″ in height (Figure 8).

Projecting into the room from the southeastern wall of the house is a large tapering stone buttress across the top of which runs the central support beam of the house (Figure 9). Originally it was thought that this pier served no other purpose than to support the central beam, but closer inspection revealed that such construction was overly massive for this task. It was then decided that this feature represented the basement support for two corner fireplaces in the rooms directly above Basement Room 4. (More will be said about these fireplaces later.) A final important feature of Basement Room 4 is the presence of 67 wrought iron meat-hanging hooks which have been hammered into both sides of the floor joists in an alternating pattern that averages 16 hooks per beam (Figure 10). Since these appear in no other room of the original tavern and because of the proximity of Basement Room 4 to the original kitchen, it was decided that this room represented the food storage area of the tavern.

Above the two basement rooms, the main floor of the tavern consists of three rooms, all of which are readily accessible from the central hallway which also contains the staircase to the second story (Figure 11). To the right of the central hallway is Room 3 which contains a walnut bar, reminiscent of the 1830's or 1840's, measuring 4′ 6″ in width and 5′ 9½″ in length (Figure 12). The bar is entered through a narrow door to the extreme right. The serving window can be barred by closing a grilled frame which consists of eight diamond shaped wooden rods. The manner of locking this window is unique. The framed window was shut and a wooden or metal pin was inserted through the door frame into the bar window frame. The bar door when closed and locked would prevent removal of this locking pin and the opening of the serving window. The bar area contains one double-hung sash window which is smaller than any other window in the room. This measures 23″ in width and 45″ in height and contains six panes of glass measuring 9½″ wide by 11½″ in height arranged in a four over two pattern. This is possibly an original window since the frame has been pinned together with wooden dowels. As with all other windows in the northwestern exposure of the house, it has no lintel, rather, the dressed stone of the house has been continued unimpeded across the top of the window frame. The bar area contains evidence of three shelves. One, which still exists, runs the length of the back wall of the bar at the sill height of the window. Above this shelf are outlines on the wall indicating the presence of two other shelves. In height, the three shelves are one foot apart.

Adjacent to the bar area stands a dressed sandstone fireplace which had been converted to coal burning by narrowing the opening with brick and inserting a coal burning cast iron grate. Removal of the mantel, grate, and the brick blocking revealed a much larger fire-box as well as a keyed arch lintel of eleven stones at the top of the fire-box (Figure 13). The largest of these measured 7 ¾″ in width by 9 ¾″ in height. This fireplace is located directly above the large cooking fireplace in Basement Room 3.

At present, Room 3 contains only two other windows

Figure 10. Meat hooks in basement food storage area.

in addition to the one discussed above in connection with the bar. One of these windows faces northwest and measures 38″ wide by 57″ high. Again, there is no lintel above this northwestern exposure, but its counterpart in the northeastern wall which measures 40″ wide by 68″ high has a wooden lintel 39″ long and 4″ in height. Prior to the construction of the stone addition, Room 3 had one additional window in the southwestern wall. The original stone opening of that window measured 41½″ wide by 58″ high. When the stone addition to the tavern was added, this window was removed and the opening altered to accommodate a doorway which presently connects Room 3 and Room 2, the largest single room in the addition. Removal of plaster and lath above the present doorway revealed that the original window had a keyed arch lintel, a finding consistent with the use of other keyed arches on southwestern exterior openings of the original tavern. One final word about Room 3 concerns the flooring. At sometime in the past, the original oak flooring in the room has been covered with 4″ wide pine tongue-and-groove flooring. This undoubtedly was an attempt to re-level the floor of Room 3 which had sunk several inches, probably at the time the portion of the northwestern wall discussed earlier in connection with Basement Room 3 settled.

To the left of the central hallway are two small parlor rooms, Rooms 4 and 5. Room 4 is 7 inches wider than Room 5, though both have the same length. A pair of large wooden doors can be closed to separate the two rooms or opened to allow joint usage. At the southeastern end of each room, stands a small brick fireplace and between each fireplace and the exterior wall are built-in wooden cabinets (Figure 14). Both fireplaces, which judging from their reduced size and the presence of grates had originally been designed for coal burning, were blocked up at some point in the past. While the cast iron grate and brick blocking was being removed in Room 4, a portion of chair rail was dislodged from the wall next to the fireplace. Behind this wall it was

possible to see an opening of considerable size. Once the plaster had been removed from this area, it was evident that the opening was an original chimney area. Recall that the large buttress in Basement Room 4 directly underneath Rooms 4 and 5 was presumed to be a foundation for corner fireplaces in these rooms. The discovery of the original chimney area located between the two brick fireplaces now confirmed this. Using flood lights, it was possible to trace on the exterior walls the paths of the old flues which had led from the corner fireplaces. The present brick fireplaces and their flues were definitely replacements for these earlier corner fireplaces, and were probably built after the original flues, built of sandstone, had possibly deteriorated or caved in. The brick flues run parallel but separate from each other until they converge in the attic where they share a common chimney. In the area of the old standstone flues many artifacts were found which are presently undergoing analysis.

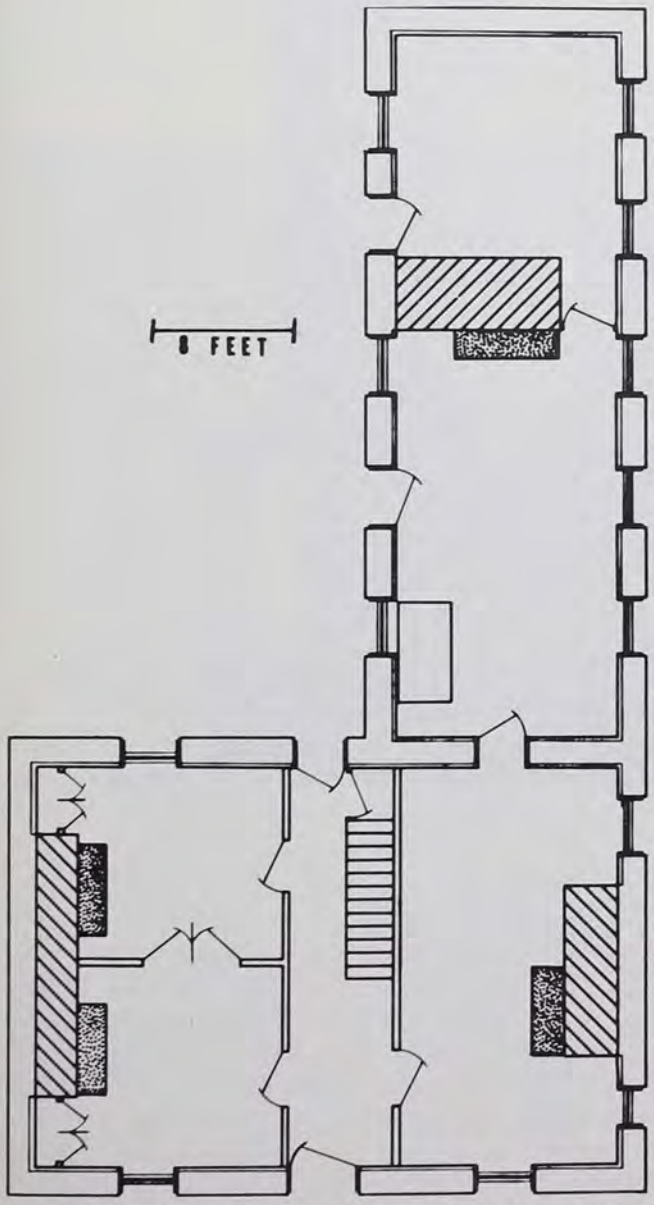


Figure 11. Floor plan of main floor. Plan includes original stone tavern and tavern addition.

Directly to the back of the central hallway and to the left of the present stairs to the second story is a doorway measuring 32½″ in width by 75″ in height. Currently, this doorway leads to an enclosed room of the porch, but before the building of the stone addition this was an exterior doorway with a keyed arch lintel. The entire doorway had ben reduced in size from a 50″ width and a 92″ height to its present dimensions. This fact presents an interesting architectural dilemma. A door of the dimensions given above (notice that the front door and the original bark door dimensions are identical) would preclude the use of the stairs presently found in the hallway. No trace of spiral steps was noted in the walls. How access was originally gained to the second floor remains a mystery. It should also be noted that no interior stairway between Basement Rooms 3 and 4 and the main floor could be found. This implies that moving from the basement to the main floor of the tavern always involved a trip outdoors. Interior access between these floors dates only from the time of the building of the addition when stairs connected Room 2 and Basement Room 2. Why Peter Colley may have designed what to Americans would be a terribly awkward access route between floors is not known, but one may speculate that this was the most expedient manner for keeping the Colley children separated from the gruff manners and coarse language of the wagoners. Likewise, the wagoners were spared the playful yet often exasperating behavior of small children. If these speculations are correct, it is functionally accurate to speak of the tavern at its earliest period as being only Basement Rooms 3 and 4. The upper two stories may well represent only the home of the Colleys and an area functionally distinct from the tavern operations beneath.

The wooden stairs leading to the second floor rise a vertical height of 9′ 7″. Eleven stairs measuring 34½″ in length by 11 ¾″ in depth by 7 ½″ in height lead to a small landing measuring 36″ wide by 70″ long. Three additional steps lead from the landing to the second floor. The banister of the stairs is unornamented. Thirty-eight plain 1″ by 1 ¼′ vertical banister supports are used.

Room 6 at the top and to the left of the stairs measures 10′ 10″ by 9′ 9″ and contains the access to the attic as well as a large closet to the right of the attic doorway (Figure 15). An original window in this room had been blocked at the time of the construction of the stone addition. The crawl-space above the addition can be reached only by climbing through this window. Having been blocked, this window frame did not undergo the "modernization" that befell most

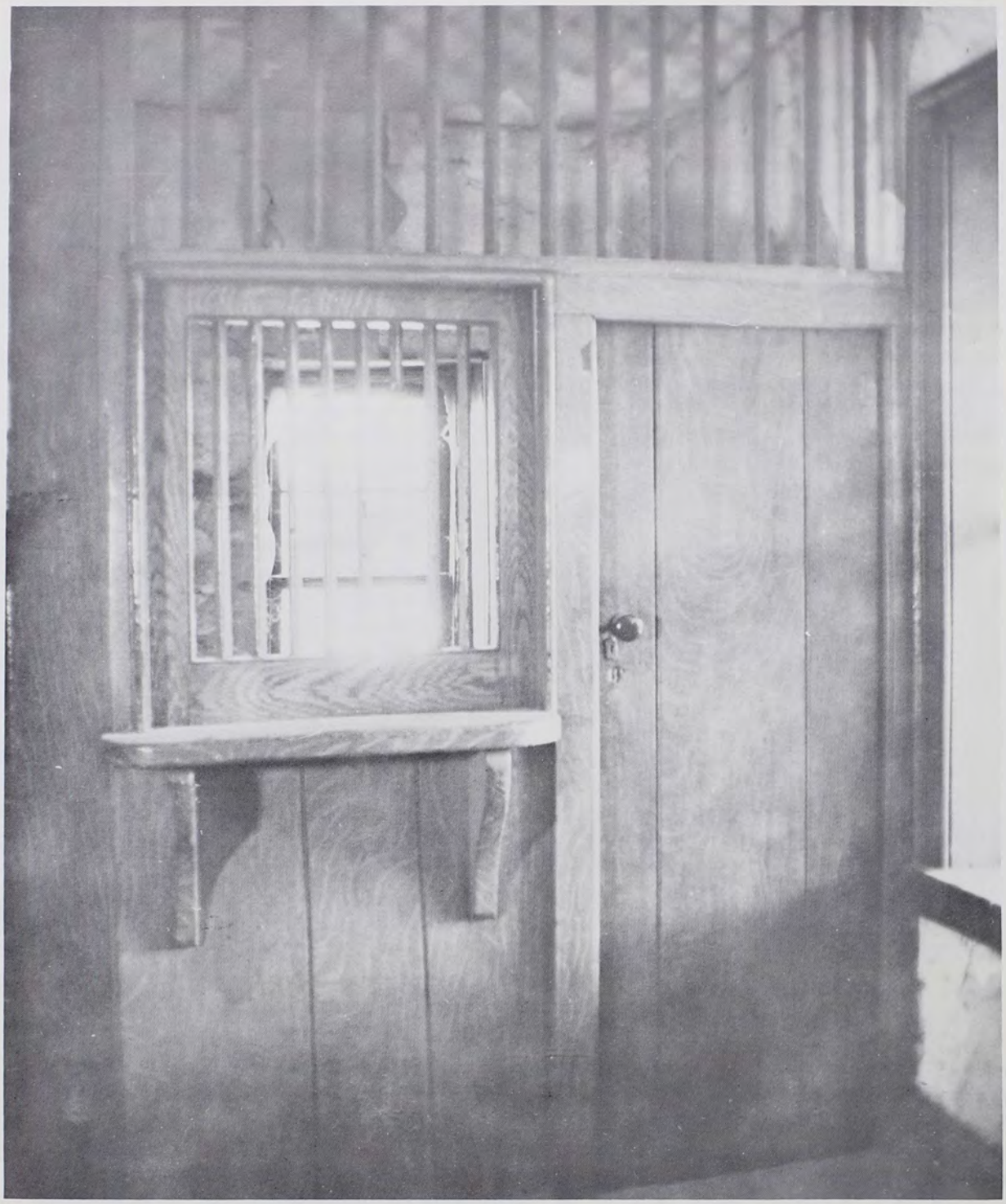


Figure 12. Bar

windows in the house. The frame of the window, which was pegged together with wooden dowels, measured 41″ in width by 56″ in height.

Room 7, adjacent to Room 6, has the distinction of being the only room on the second floor to have a keyed arch lintel fireplace. Like the barroom fireplace beneath it, it is in the northwestern wall and is constructed from sandstone and has seven keyed stones, the keystone of which measures 8″ wide by 8 ¾″ high. Next to the fireplace is a large wooden floor to ceiling cupboard or closet.

Room 8 is the smallest of the tavern's rooms (this recently partitioned area is not shown on the floor plan). Measuring only 5′ by 5′ 10″, it is actually an enclosed end of the second floor hallway. Its walls are made of circular sawed boards which have been papered. Entrance is through a door measuring 21½″ by 72″. Due to its small size, this room may have been used as a linen closet or perhaps as a nursery, but there is no evidence to conclusively prove either hypothesis.

Rooms 9 and 10, located above Rooms 4 and 5 respectively, each contain a brick fireplace that shares

a flue with the one below it. As was the case in Rooms 4 and 5, both second floor rooms contain one wooden floor to ceiling cupboard or closet and one window. Unlike the situation in Rooms 4 and 5, however, no doorway has been provided between the rooms. This would indicate that they, along with Room 7, were used as bedrooms by the Colleys. It is unlikely that many of the wagoners ever slept in such accommodations. It is more likely that they simply curled up around the large cooking fireplaces in the basement or the barrooom fireplace.

As mentioned above, the attic of the Colley Tavern is entered through Room 6 by climbing 11 spiraling stairs that taper in width from 14″ to 1 ¼″ and which are 7 ¼″ high and 39″ long. These transcend a vertical distance above the second floor of 8′ 7″. The roof, which is visible from the attic, consists of 11 pairs of tapered rafters. No ridgepole was used either in the main building or in the stone addition. In the absence of the ridgepole, each pair of morticed rafters are joined together at their vertex by the use of a single wooden peg.

As in the case of the Searight Tavern, the stonemason who built the original portion of Colley Tavern remains a mystery. Redstone Township tax records do not contain references to stonemasons until 1801, five years after the alleged time of the Colley Tavern construction. (An undocumented, renewed cornerstone indicates a 1796 construction date, but the lack of hand wrought nails throughout the tavern casts serious doubts on the credibility of such an early date.) John Jones is the first recorded stonemason in the Redstone Township tax records but his name did not appear until 1801.

A list of Redstone Township stonemasons from 1801 to 1805 includes:

1801 *John Jones*
1802 *John Jones*
John Peeples
Griffith Roberts
James Russell

Figure 13. Barroom fireplace. Note the radiating and keyed stone lintel.

1803 *John Jones*
Griffith Roberts
1804 *John Jones*
William M[-]Manmy (spelling uncertain)
William McManamin (stonecutter)
Griffith Roberts
James Russell
1805 *John Jones*
Griffith Roberts

Although it is not the purpose of this article to discuss nationality in connection with specific trades, it is worth noting that all these early stonemasons have British Isles surnames. Further research into the ethnic backgrounds and origins of Pennsylvania stonemasons may prove to be fertile ground indeed for folk historians and anthropologists alike. More to the point, it is quite possible that one or more of the stonemasons from the accompanying list built the Colley Tavern.

The exterior walls of the original tavern are constructed of mixed dressed sandstone and field sandstone, the source of which was undoubtedly the plentiful sandstone outcroppings along the Monongahela River, only a few miles from the tavern. The largest of the sandstone blocks were reserved for use in the corners of the building. The largest block in the northeastern wall of the building measures 31″ long, 14″ high and 9″ deep. By contrast, the smallest stone found in the same wall measures about 2″ by 2″. In the lower courses of the walls, long narrow sandstone slabs seem to have been used, probably in an effort to reduce sagging and settling. One of these slabs in the northeast wall near the corner with the southeast wall measured 3′ 4″ in length and 6″ in height. The largest of the dressed sandstone blocks appear in the southwest wall, the current back of the building. Large blocks also appear in approximately the upper one third of all the walls with concentrations in the corner areas. At the top of the northeast and southwest tavern walls is a facia board 11 ½″ high which joins the 13″ wide soffit overhang. Gutters are not currently found. The southeast and northwest walls of the tavern are overhung simply with a facia board. Partial return boxed cornices are found at each of the four corners of the house. At the gable of the northwest wall, a sandstone slab has been set in place in such a way that it resembles a "cornerstone". Unfortunately, no inscription could be discerned on the block, and it is therefore uncertain whether this was a namestone of some sort or simply an unusually coursed stone in the wall's facade.

Sometime after the construction of the main portion of the tavern, a second major period of building occurred at the site. A one-story sandstone addition measuring 42′ 4″ by 16′ was added to the southwest wall of the original building. The addition included four rooms, Basement Rooms 1 and 2 and Rooms 1 and 2, plus a crawlspace.

Figure 14. Brick fireplace. They were found in the remodeled sitting rooms.

Basement Room 1, in the most southwestern portion of the addition, measures 13′ 2″ by 12′ 5″ and was used in the early part of the 20th Century as a barbershop. Its original function has not as yet been determined.

Basement Room 2 measuring 23′ 8″ by 12′ 3 ½″ has two exterior doorways, one in the northwest wall, the other in the southeast wall. The latter door exits into a partially subterranean area that runs parallel to the axis on the stone addition. This area under the wooden porch contains a well 20′ 8″ deep at present. This arrangement permitted the retrieval of water for tavern and home use at any time and in all kinds of weather. Although this area is large enough to have also been used as a general storage place, its main function undoubtedly was that of allowing protected access to the tavern's water source.

Another interesting architectural feature of Basement Room 2 was discovered late in the field season. This was a second cooking fireplace. It is smaller than the main fireplace in Basement Room 3 yet larger than any of the tavern's other fireplaces. This feature remained undetected on initial inspections of the room because it was built into the wall separating Basement Room 1 from Basement Room 2, and because it had been thoroughly plastered over. Removal of the plaster revealed a fireplace built of heavy quarried sandstone blocks which were surmounted by a heavily nicked wooden lintel with a bead at the bottom, which originally measured 106 ¾″ in length, 16″ in height and 14″ in depth. Unfortunately the central portion of the

lintel, that part over the firebox, has been sawed out. Perhaps an excessively hot fire had burned the lintel through or more likely had burned it to the point where collapse of the stone above was imminent. Rather than trying to remove the old lintel and replace it, a complicated job since the lintel runs virtually the entire length of the wall into which the fireplace was built, it was decided to saw out the burned central portion and block the entire fireplace. This had been done with several materials. Sandstone and common red brick had been used with yellow or white fire brick being added more recently. In front of this fireplace was a large single piece hearth stone measuring 8′ 2″ in length and 2′ 7″ in width. This probably indicates that Basement Room 2, unlike the adjacent original kitchen in Basement Room 3, always had a board floor—a considerable improvement over the damp dirt floor of the old kitchen. Portions of the plastered ceiling above the Basement Room 2 fireplace were removed in an attempt to determine whether the ceiling had been open beamed or plastered at the time that the fireplace had been in operation, but no soot was observed on the flooring joists behind the plaster. Therefore, not only had this room always had a finished floor, but the ceiling, too, had been refined over the rough open-beam construction of the kitchen in Basement Room 3.

The main floor of the addition is reached from Basement Room 2 by climbing 10 stairs that lead through a trap door into Room 2; the stairs have no banister. The stairs transcend a vertical height of 7′ 10″ and have a tread width of 10″, riser height of 8¼″ and step length of 36″. During cleaning of the straight sandstone linteled fireplace in Room 2, a letter to Ramsey Woodward dated August 1883 was found (Figure 16). As already indicated, the Woodwards were owners of the Colley Tavern after it had been sold out of the Colley family. Since mail was probably put in place of prominence in the house to avoid its loss, it seems likely that Room 2 was used (after the tavern operation had ceased) as the family living room. Its original use is unknown, but one may speculate that if Basement Room 2 is in fact an extension of Basement Room 3, the original kitchen, then Room 2 may well represent the extension of Room 3, the bar area. Support for this comes from the observation that no door ever closed off Room 2 from Room 3. The two are joined by a simple open doorway made at the time of the building of the addition by removing the only southwestern window in Room 3. Room 2 has one exterior exit from its southeastern wall. This leads on to the wooden porch that runs the length of the addition. Directly in front of this door is the main gate of the porch. Four large sandstone steps and one thinner sandstone slab descend from the porch to ground level. The larger steps measure 53″ in length, 9″ in height and 16″ in depth and transcend a vertical distance of 4′ 5″. At the base of these steps a walkway was uncovered that connected the addition with one of the outbuildings whose foundation was also discovered during the course of the excavation. These blocks measured 12″ by 12″ and were made of coarse concrete.

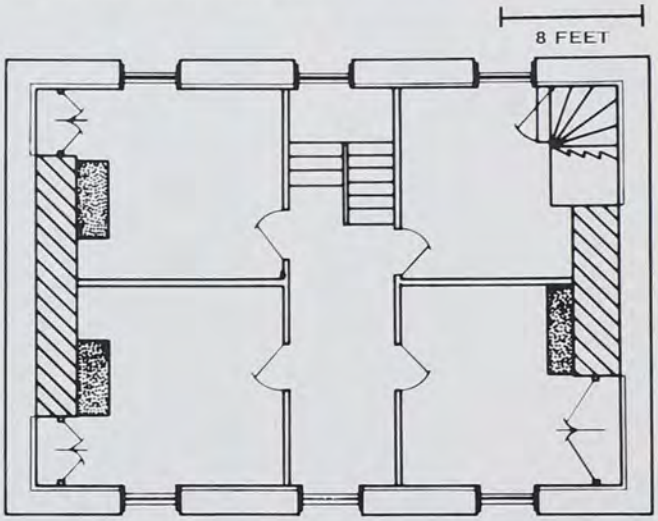


Figure 15. Floor plan of second story.

The other main room of the addition, Room 1, is an area used in more recent times as a kitchen. It has one exterior door in its southeastern wall that exits onto the wooden porch. Two double hung sash windows are found in its northwestern wall. The northeastern wall of the room contains a sandstone fireplace with a one piece sandstone lintel. A coal burning grate was added to the fireplace in more recent times. The room is separated from Room 2 by a wooden door.

The crawlspace above the stone addition is entered, as was mentioned before, through the southwest window in Room 6 of the original tavern. Only one window in the southwest wall of the addition illuminates the crawlspace. This measures 28½″ in width by 30″ in height. Directly in front of this window, a wooden door or shutter measuring 23″ in width and 43″ in height was found. From its dimensions it is believed to have been a shutter used to enclose the one outside window of the bar in Room 3.

In conclusion then, what cultural and architectural inferences can be drawn from the foregoing data? It is at this point that several hypotheses are possible. But first, there remains the question of when the original house or tavern was built. After examining the wooden mouldings, the hardware and screws that attached the doors and locks, the nails used in interior wall construction and to affix the plastering lath to the studs and joists, and the earlier of the present windows, it appears that the original basically symmet-

Figure 16. Fireplace with rectangular sandstone block for a lintel.

rical Georgian house was not built before perhaps 1805 or as late as 1820. With few exceptions, the door frames, baseboards, chair rails, and other mouldings date to a post Civil War period. Those few earlier simple mouldings that do exist could indicate 18th Century construction except for the fact that they have been exclusively attached with machine-cut nails. The cut brads and lath nails do, however, have the iron fibers running at right angles to the axis of revolution of the nail which could indicate that they had been made as early as the mid-1790's.

Upon examination of the screws used in securing hinges and cabinet latches, it was found that none of them had hand-filed threads. They were all without points and therefore manufactured before or shortly after the 1846 invention of the pointed screw. Since the screw threads were not finely machined, a production date during the early 1800's might be reasonable.

The three existing early windows were likewise little help in securing a 1790's construction date for the building. Although they were of mortised and pegged construction, they lacked unique attributes which would indicate that they had been made before 1800.

Could the house have dated from 1796 as suggested by the renewed corner stone? It may have. There is nothing that precludes Basement Room 3, which includes the cooking fireplace, and Basement Room 4 from having been the original house. The basement of a house is occasionally inhabited today before the main house is built. So why, during a time when money and materials were scarcer than they are today, is it not plausible that basements were occupied until a family acquired the means to finish their dwelling? If that was not the case, a log house may have initially stood on the present foundation or the cornerstone may indicate when Peter Colley first built a house in the immediate vicinity. Culturally we have much to learn about how long it took to build houses or remodel them during the late 18th and early 19th Centuries.

However, in spite of what appears to be conclusive architectural and preliminary artifactual evidence for an 1805-1820, instead of a 1790's construction date for the tavern, the insertion of one last bit of historical documentation probably destroys that hypothesis. The Direct Tax of 1798, a federal tax based largely on the number of lights or panes of glass in a house, shows

		SiO_2	CaO	Al_2O_3
Room 1	Outer Plaster Layer	35	66	.50
	Middle Plaster Layer	62	21	6.30
	Inner Plaster Layer	45	45	3.00
Room 3	Outer Plaster Layer	34	57	1
	Middle Plaster Layer	44	38	6.5
	Inner Plaster Layer	70	22	6
Room 4	Outer Plaster Layer	28	60	2
	Middle Plaster Layer	64	18	5
	Inner Plaster Layer	42	22	8

Figure 17. Spectographic data from Colley tavern.

Room Number	Dimensions
1	16'9" x 12'9"
2	23'6" x 12'9"
3	22'8" x 12'1"
4	11'4" x 13'8"
5	10'2" x 13'8"
6	10'9" x 9'9"
7	12'2" x 10'11"
8	5' x 5'10"
9	11'5" x 13'7"
10	10'9" x 13'9½"
Basement 1	13'2" x 12'5"
Basement 2	23'8" x 12'2½"
Basement 3	21'9" x 16'
Basement 4	21'5" x 12'
Attic	40' x 26'

Figure 18. Room dimensions of Colley Tavern.

Room Number	Northwest	Southeast	Northeast	Southwest	
1	39" x 58"	-	-	-	
	39" x 58"	39" x 58"	-	-	
	38 3/4" x 58"	-	-	-	
2	-	39" x 58"	-	-	
	39" x 58"	39" x 58½"	-	-	
	39" x 57½"	-	-	-	
	39" x 57½"	-	-	-	
3	28" x 45"(Bar)	-	40" x 68"	-	
	28" x 57"	-	-	-	
4	-	-	40½" x 68"	-	
5	-	-	-	39" x 67"	
6	-	-	-	41" x 56"	(orig. Frame)
7	-	-	39½" x 58½"	-	
8	-	-	39½ x 58"	-	
9	-	-	39½" x 58"	-	
10	-	-	-	40" x 57"	
Basement 1	34" x 50"	33½" x 49"	-	-	
	33½" x 49½"	-	-	-	
Basement 2	33" x 49½"	34" x 49"	-	-	
	33" x 49½"	-	-	-	
Basement 3	38½" x 54½"	-	(enclosed) 34" x 29"	-	
Basement 4	-	-	(enclosed) 33" x 27"	42" x 26"	
	-	-	-	(enclosed) 22" x 25"	
Attic	-	20" x 32"	-	-	
	-	30" x 29"	-	-	

Figure 19. Window opening dimensions and direction dimensions (width x height).

that Peter Colley owned a 26 x 36 feet two-story stone home in Redstone Township in that year.

While the tax supports a pre-1798 construction date for the structure, it does not verify that the present floor plan existed at the time. The tax showed the tavern had four six-over-nine (6/9), six six-over-six (6/6), and three two-over-two (2/2) or single-sash four-pane windows. A breakdown of window sizes based on present architectural evidence showed that the tavern in its earliest observable form had at least seventeen and possibly nineteen windows, not thirteen as the Direct Tax indicated.[12]

Where does all this take the interpretation of the tavern's architecture? It points out several things. First, architectural and artifactual information may not always be supportable by historical documentation. Second, the technology for manufacture of cut nails, upon which the 1805-1820 contruction date was heavily based, may have been present in Southwestern Pennsylvania earlier than previously thought. Third, the probability remains strong that the tavern was very thoroughly modified perhaps about 1842 as already discussed.

Regardless of when the original structure was built, there are several architectural attributes that may have cultural importance. As already mentioned, it seems likely that most early 19th Century stone homes, at least in Fayette County, were being built by English, Welsh, and Irish stonemasons. That phenomenon immediately evokes the question of what nationality-related architectural attributes their work displayed. Did they prefer sandstone dressed to certain sizes? Were they particular about what types of lintels they used? Did they favor window wells for bank buildings? And so forth.

These questions cannot be answered at present, but an interesting feature of the Colley Tavern is the obvious difference between the stone work on the front and back of the original building. The front is plain with balanced size dressed stone and only wooden lintels while the back is constructed of stone that by present standards is of aesthetically unbalanced sizes and four out of six windows and two doors have arched lintels with keystones. The variation might be explained by the fact that two stonemasons, each of a different nationality, built the house. A different explanation could be one of personal preference on the part of the Colleys. Since it is likely that the kitchen area (Basement Room 3) was extensively used by the wagoners who patronized the tavern, the Colleys may have preferred to have the more elaborate architectural details of the house on that side most exposed to public view. This assumes, of course, that keyed arch lintels

[12]United States Direct Tax of 1798, Tax Lists for the State of Pennsylvania, Ninth Tax Division, Second Assessment District (Fayette County), Redstone Township.

were considered to be aesthetically pleasing to the general populace at the time of construction and that an explanation based on special structural support for the southwest wall is not called for.

Whatever the rationale for the variation in stonework from the front to the rear of the structure, the stone addition to the main house obliterated most of the early masonry at the back of the house. This addition probably was added at a time when tavern business along the National Road approached a peak. Considering that direct entrance to the addition from within the house could only be gained via the barroom, the addition probably had little functional value for the Colley family. Further, since it was built with riven white oak lath, vertically sawed boards, pointless screws, and had no ridge pole, its construction undoubtedly predates the Civil War and more than likely dates from the early 1840's.

As pointed out earlier in this report, the 1840's date is offered because in 1842 George Colley reopened the tavern after an eighteen year lapse of operation. The 1840's is likewise the period of greatest slackwater travel between Brownsville and Pittsburgh; that denotes increased road traffic. Lastly, the barn, which is about 250 feet from the tavern, shows an 1848 construction date. All of these items considered, an early 1840's date for the stone addition seems reasonable.

An 1840's date also seems likely for major remodeling of the original stone structure. The brick fireplaces in Rooms 4 and 5 appear to date from nearly the time of the stone addition. This conclusion is based on spectrographic analysis of plaster samples from Rooms 1, 3, and 4 (Figure 17). The silicon dioxide or sand, and calcium oxide or lime content from each of three plaster layers in these rooms indicates that they were plastered with a similar mixture. Since the mineral percentages in Rooms 1 and 4 varied significantly from Room 3, which was the barroom, and since Room 4 would have to have been replastered after the corner fireplaces were removed and replaced by brick fireplaces, a parallel date for the remodeling of the original house, including the narrowing of the door at the rear of the central hallway, and the adding of the stone addition is hypothesized.

Unfortunately, the accuracy of this hypothesis and others offered in this paper are difficult to test. There is a great need for many of the questions posed to be tested through research. Numerous culturally related architectural features and cultural implications of 19th Century innkeeping need to be studied. However, until more comparative data from within local areas and geographical regions is compiled, the task will remain nearly impossible. Until that time, examination of folk occupations such as innkeeping and the study of local architectural traditions will remain largely descriptive.

Door Number		
1.	Room 1 to Porch	36½" x 80½" (Stone Opening)
2.	Room 1 to Room 2	33 3/4" x 77 3/4"
3.	Room 2 to Porch	36½" x 80½" (Stone Opening)
4.	Room 2 to Room 3	42" x 93" (original) (Stone Opening)
	Room 2 to Room 3	32¼" x 78¼" (Reduced Size)(Reduced Frame)
5.	Front Hallway to Room 3	33 3/4" x 78 1/4"
6.	Barroom Door	26½" x 73" Bar Door 30 3/4" x 33 1/2"
7.	Front Door of House	50" x 92" (Stone Opening)
8.	Front Hallway to Room 4	33½" x 78"
9.	Front Hallway to Room 5	33½" x 78½"
10.	Front Hallway to Enclosed Room of Porch	50" x 90" (Original) (Stone) 32½" x 75" (Reduced) (Frame)
11.	Upstairs Hallway to Room 6	27" x 78"
12.	Room 6 to Attic Stairs	38" x 71¼"
13.	Upstairs Hallway to Room 7	32½" x 78¼"
14.	Upstairs Hallway to Room 8	21½" x 72"
15.	Upstairs Hallway to Room 9	31 3/4" x 79 1/2"
16.	Upstairs Hallway to Room 10	33½" x 78½"
17.	Basement Room 1 to 2	40" x 79" (Stone Opening)
18.	Basement Room 2 - Southern Exit	39½" x 76" (Stone Opening)
19.	Basement Room 2 - Northern Exit	39¼" x 79" (Stone to Stone)
20.	Basement Room 2 to Room 3	51" x 79" (Original) (Stone) 35" x 75½" (Reduced)
21.	Basement Room 3 - Northern Exit	60" x 70" (Original) 38½" x 69" (Reduced)
22.	Basement Room 3 to Basement Room 4	61" x 74" (Stone Opening) 48" x 60" (Frame to Frame)

Figure 20. Doorway dimensions (width x height)

Room Number	Northwest	Southeast	Northeast	Southwest
1			39" x 41" x 12"	
2				39" x 41" x12"
3	45½" x 39" x 16"			
4		36" x 36"x13"		
5		30" x 36"x13"		
6		No Fireplace		
7	28½" x 30" x 18"			
8		No Fireplace		
9		36" x30½"x13½"		
10		27" x 30" x14"		
Basement 1		No Fireplace		
Basement 2				59" x 49" *
Basement 3	72" x 57" x 32"			

* Depth for Basement Room 2 fireplace not available. The lack of support for the stone above the firebox prevented it from being opened.

Figure 21. Fireplace direction and dimensions (W x H x D) of Firebox.

Room	Fireplace Material	Lentil Type	Straight Lentil Dim.	Number and Size of Key Stone	
1	Quarried Sandstone	Sandstone Straight	44 3/4" x 8 3/4"	-	
2	Quarried Sandstone	Sandstone Straight	46" x 8 1/2"	-	
3	Quarried Sandstone	Keyed Stone Arch		11 Keyed Stone 7 3/4" x 9 1/4"	(WxH)
4	Red Brick	-	-	-	
5	Red Brick	-	-	-	
7	Quarried Sandstone	Keyed Stone Arch		7 Keyed Stone 8" x 8 3/4"	(WxH)
9	Red Brick	-	-	-	
10	Red Brick	-	-	-	
Basement 2	Quarried Sandstone	One Piece Straight Wood	106 3/4" x 16" x 14"	-	
Basement 3	Quarried Sandstone	One Piece Straight Wood	116" x 17" x 13 1/2"	-	

Figure 22. Fireplace construction material and lintel type.

The Wilderness and the City

By DON YODER

[A review of George Gates Raddin, Jr., *The Wilderness and the City: The Story of a Parish—1817-1967* (Wilkes-Barre, Pennsylvania: St. Stephen's Episcopal Church, 1968. xviii, 777 p.)]

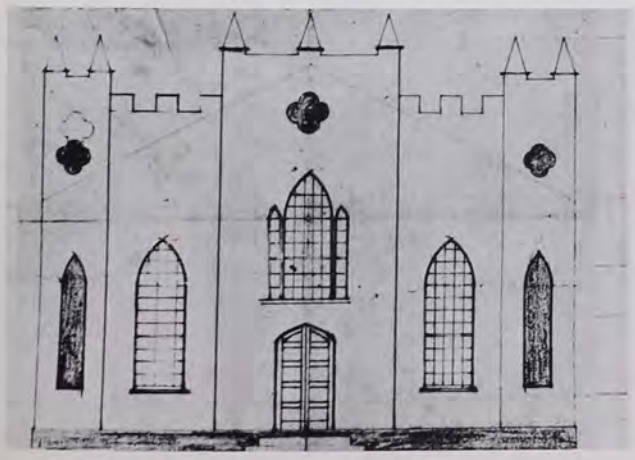
George Raddin's *The Wilderness and the City* is the detailed history of St. Stephen's Episcopal Church in Wilkes-Barre from its foundation by Jackson Kemper in 1814 to 1967. But the book is much more than that. It is parish history at its best, making use of every available source from personal correspondence to economic and settlement history, from parish archives to diocesan reports. Superbly researched, it is a contribution both to American church history and to Pennsylvania history.

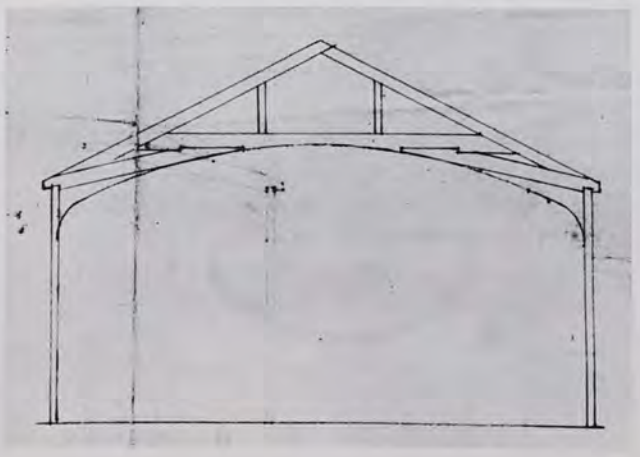
The wilderness was the Wyoming Valley, Pennsylvania's North Branch of the Susquehanna "beyond the Endless Mountains". The town of Wilkes-Barre was incorporated in 1806 and became, through the entrepreneurship of pioneers like Matthias Hollenback of Pennsylvania background and the Bowmans and Scotts of New England stock, the principal market town of Northeastern Pennsylvania and the settlement bridge to the North Branch valley and Western New York. It was linked to New York via Easton and via Reading to Philadelphia. The development of Wilkes-Barre as town and the region as important for agriculture, trade, industry, and mining is followed throughout the book, and the chronicle of area settlement from the Yankees to the Slavs and Italians joins the story of the development of religion, particularly Episcopalianism, in forming the fabric of the book.

It has been a common claim by William Warren Sweet and others of the "frontier school" of historiography that the Protestant Episcopal Church was slow to expand on the successive frontiers that have made the American nation, and "lost out" to the more aggressive Methodists, Baptists, and Presbyterians. This story, one of inward expansion of Episcopalian work within the Diocese of Pennsylvania—and later the foundation of the Diocese of Central Pennsylvania (1871) and of Bethlehem (1909), in which the Wyoming Valley was placed successively—shows an admirable adaptation of the church to the needs of nearby frontiers. This concern began with the diocesan missionary society formed under Bishop White in 1812, which sent out Jackson Kemper to plant the standard of Episcopalianism in Wilkes-Barre and several other points in the adjoining counties. Through the years St. Stephen's Church (incorporated 1817) has been the center of missionary expansion in the North Branch area, and the parish through its concern produced several dozen daughter parishes.

What is particularly admirable about Dr. Raddin's treatment is the background materials against which the development of the parish is seen. The first two chapters, "Pennsylvania Provincial Church, 1695-1776," and "Connecticut vs. Pennsylvania, 1776-1796," rank among the best, most concise summaries available in Episcopalianism in Pennsylvania (on which our historiography is unfortunately sparse) and the development of the Wyoming region socially, economically, and spiritually. One gets full details on the rivalry between Churchman and Presbyterian, for example, and the author is frank about the "small measure of Christian forbearance exhibited by Church missionaries toward the invading horde of Ulstermen" (p. 6) in the colonial period. This rivalry was to continue long into the 19th Century as New Englander and Presbyterian continued to oppose the Episcopalian in North-

St. Stephen's Episcopal Church, Wilkes-Barre, 1822, Pennsylvania, from Original Plans.





eastern Pennsylvania, even in the use of the Wilkes-Barre "meetinghouse on the square" which the New Englanders had built for "town" use in the New England sense. Chapter II not only gives a balanced account of the Pennamite troubles, but is enlightening on the important place the Episcopalian crowd had in the settlement of the Northeast. Land speculation by Philadelphia Episcopalians—the Barings, the Willings, the Binghams, the Conynghams, the Peterses, Bishop White and even the Trustees of the Episcopal Academy—involved large areas of Luzerne and adjoining counties. Even the million acres reserved in Bradford, Sullivan, and Lycoming Counties by Philadelphia's Episcopalians for the Azilum project were involved. In a sense the denominations were engaged in a kind of ecclesiastical geopolitics on the Pennsylvania frontier.

The second accolade for this volume is its full and interestingly portrayed treatment of what was going on in the Episcopal Church at large and how St. Stephen's parish related itself to national and diocesan developments. There is full treatment of the progress of Evangelical, Conservative, and High Church parties in the American Church, and their impact upon the Diocese of Philadelphia and St. Stephen's parish. St. Stephen's, it appears, aligned itself with the Evangelical party in the early period, and after the Civil War showed the marks of a typical Social Gospel settlement-house type approach to the needs of town and surrounding area. Before the Civil War the Diocese was conservative, following Bishop White's own conservative stance, "determined to prevent the Church in Pennsylvania from being thrust into the competitive evangelical mainstream of American religious life" (p. 109). The Evangelicals, most of whom were not natives of Pennsylvania, opposed "the traditional conservative Pennsylvania church policy" (p. 111), some of them even demanding Episcopalian camp-meetings in their call for a more activist evangelical thrust.

The acrimonious controversies between Evangelicals and Conservatives in the diocese in the 1840's are gone into fully, and fortunately with no holds barred. All the details are given, for instance, of the deposition of Bishop Onderdonk for his indulgence in "brandy and women" and in the discussion we learn the fact that at the time the Philadelphia bars were serving a julep called the "Onderdonk". Denominational party strife cloaking personal enmities was common enough in the American church world of the 19th Century, but the end result of this case was another defeat for the Protestant Episcopal Church, a low period, which fortunately was recouped after the Civil War. The later bishops were men of vision who steered a middle course between what they considered unchurchly Evangelialism on the one hand and on the other the new imported Anglo-Catholicism (which produced its crop

General Isaac Bowman, New England - Born Founder of Pioneer Wyoming Valley Family.

of defections to Rome). Particularly valuable are the long quotations year after year from the bishop's messages on the state of the diocese, which chronicle these controversies.

The concern of the parish for the general population and its welfare is a chapter in the local application of the Social Gospel. In 1887 the parish set up an Industrial School to teach "sewing and plain cooking to teenage girls" (p. 233). In 1891, sensing the need for constructive work among "the tough and unruly breaker boys" (p. 241), an Industrial School for Boys was initiated which by 1902 had achieved national fame as a community welfare project with an average attendance on Saturday evening of nearly 750. The parish also joined hands with other Protestant churches to establish the local Y.M.C.A., the temperance movement, and other social reform endeavors, in the face of the intemperance and violence among the immigrant miners. It is easy to see all this as melting pot ideology and the attempt to remake the immigrant into the Protestant image. But truer to the church's own sense of mission is Bishop Potter's statement (p. 283), "God will not come back to Wilkes-Barre until you and I make a highway for Him in the hearts of men in utter ignorance of whose lives, and in large indifference to their sorrows and perils, too many of us are living . . . ."

Documentary and biographical appendices (27 of them in all) close the book, making it a sourcebook and reference work on religion and society not only in St. Stephen's Church but in the entire North Branch Valley. Detailed biographies and genealogies are given of all the clergy, vestrymen, and incorporators of St. Stephen's Church, and details, charters, and incorporator lists of the churches at Pike, Springville, New Milford, Pittston, Plymouth, Kingston, and Nanticoke—all daughter parishes of St. Stephen's. For the settlement and development of the entire area the materials on the Peters, Conyngham, Scott, Miner, Sitgreaves, and other key families are invaluable for reference. And finally, Appendix VII on the Reverend Jackson Kemper (1789-1870), pp. 519-556, giving lengthy extracts from the correspondence to and from the missionary in the pioneer period, is alone worth the price of the book.

Folk-Cultural Questionnaire No. 31: The Rural Marketing System

In the 1970's, when we have witnessed the growth of new marketing institutions in the United States, formal and informal — supermarkets, flea markets, garage sales, etc. — we are interested in looking back at earlier stages of marketing, particularly of foodstuffs, in rural Pennsylvania.

1. Farmers' Markets. *If your family participated in selling foodstuffs at a local farmer's market in Pennsylvania, describe the process for us. How was the market organized? What officials were there? How were the stalls rented? Were market houses always involved? For instance, what do you remember of the earlier curb market system where farmers parked their market wagons on the street and sold from there? Describe in detail the preparation for market day. What sort of wagon was used for transport? How were the saleable materials packed? Who of the family went to market? What were the family's hours on market day? How were prices determined? What records were kept of sales?*

2. Huckstering in the Cities. *Some farmers drove huckster wagons, later trucks, to nearby cities to sell surplus foodstuffs. If you participated in this system, describe it for us. Were regular routes and customer lists developed? What sorts of foods could be sold most readily by this system?*

3. Huckstering in the Country. *Some country storekeepers, particularly meat markets, drove wagons or trucks through the countryside and villages for the sale of their products. When did this practice come into operation? What foods were involved? How did this system relate to the practice of food production on the farm?*

4. The Country Store. *What foods and other items did your family buy from the country store? It would be interesting if you would list the foods that your family derived from its own farm, and those that it was found necessary to purchase at a local store. Were the country stores ever combined with other institutions, as for example taverns, barrooms, post offices? What was the social function of the country store? In what sense were country stores community centers?*

5. The Barter System. *Write down what you recall hearing of the earlier barter system, where farmers and farmers' wives traded or bartered goods with the country storekeeper. In what sense was the country store in this way a distributing center of country goods to the cities?*

6. Cake and Mead Shops. *In the earlier era, mostly before the Civil War, old women in the country districts or villages of Pennsylvania used to keep what were called "cake shops," "cake and beer shops," or "cake and mead shops". In a sense these were the equivalent of today's corner drug store or coke counter, where light refreshments were available and social life could flourish. If you remember hearing older members of your family tell of these, describe them for us.*

7. Huckstering at Public Gatherings. *Also from the 19th Century, we have many accounts of church dedications and other public functions where hucksters gathered to feed the huge crowds and also to furnish drinks, some of them of the hard variety. The ministers complained, but some provision for the crowds was necessary. Describe what you know of these occasions and the hucksters' place in them.*

8. Country Fairs. *Our rural population used to market products at the many local fairs that once were held in Pennsylvania. There were horse fairs, cow fairs, pig fairs, etc., where these animals were sold or traded. Eventually these were centralized into county agricultural fairs which have come down to the 20th Century. In some cases, however, especially among the plain groups, the earlier specialized animal fairs have survived as well. Describe these for us. How wide an area was represented in the attenders of these gatherings? Were other items besides animals sold? How was the food situation handled? Were there hucksters and food booths?*

9. Droving. *In the 18th and 19th Centuries, droving of animals was an important job. In the days before railroad cattle cars were invented, our roads were full of herds of animals being driven to the Eastern market cities. If you have knowledge of the droving system, describe it for us. What animals were involved? How many drovers usually went with a herd? Where did they stay over night? How were the animals fed on the way?*

10. Folklore and Dialectology of Rural Marketing. *Include any humorous stories, jests, jokes, songs or rhymes about hucksters, drovers, markets, country stores, etc. Also we are interested, as usual, in the terminology of all these institutions, including dialect terms.*

Send your replies to:

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Logan Hall Box 13
University of Pennsylvania
Philadelphia, Pennsylvania 19174

25th PENNSYLVANIA DUTCH KUTZTOWN FOLK FESTIVAL

JUNE 29, 30 – JULY 1, 2, 3, 4, 5, 6, 1974

For The Folk Festival Brochure Write To:

PENNSYLVANIA FOLKLIFE SOCIETY

College Blvd. and Vine, Kutztown, Pennsylvania 19530

An invitation to become a subscriber to the Society's periodical PENNSYLVANIA FOLKLIFE, now in its twenty-third year, published five times annually, in Fall, Winter, Spring and Summer, plus a colorful Folk Festival supplement. Each issue appears in a colored cover, with 48 pages of text, and is profusely illustrated. Subjects covered include: architecture, cookery, costume, customs of the year, folk art and antiques, folk dancing, folk medicine, folk literature, folk religion, folk speech, home-making lore, recreation, superstitions, traditional farm and craft practices, transportation lore and numerous others.

The purpose of the Pennsylvania Folklife Society, a non-profit corporation, is three-fold: collecting and displaying the lore of the Dutch Country and Pennsylvania; studying and archiving it; and making it available to the public.

PENNSYLVANIA FOLKLIFE SOCIETY

Box 1053, Lancaster, Pennsylvania 17604