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IN MEMORIAM:
LAWRENCE R. HOEY, 1951-2000

SUNDAY afternoon SEPTEMBER 10, 2000, I attended Larry Hoey's memorial service held on the University of Wisconsin-Milwaukee campus in a gracious old mansion facing Lake Michigan. Many of you in the USA and abroad who are architectural historians probably know Larry from his participation at the annual Medieval Institute conferences at Kalamazoo as well as from his insightful publications on English medieval architecture, but not all of you may be aware of his many other talents.

“Larry’s Sunday” was one of those hot, sultry last days of summer when everyone in the Midwest wants to laze about; especially those in academe who have just completed the inevitably grueling first week of the University fall semester; yet the service, organized by the Art History Department, was well attended and a truly fitting memorial. A number of speakers recalled Larry’s interests in the arts, his personal warmth, grand sense of fun, scholarly pursuits, his wit and wide grin, but perhaps most moving for me were the personal insights and recollections of the young Larry by his mother and older brother. Their accounts revealed Larry as a tenacious learner who taught himself to play the piano—an endeavour that culminated a few years ago when he spent his life savings on a grand piano, a long-time object of desire that dominated his apartment to the exclusion of other more domestic comforts.

Larry was not only fascinated by medieval buildings and history (mainly European and Russian), but he (more than any colleague I know) balanced professional activities with a serious commitment to the performing arts in which he involved himself and others with rapturous enthusiasm. Sunday’s gathering proved to be a vivid testimonial to the richness of Larry’s short life, especially the importance of his other consuming passions, music and dance (Balkan, folk, and ballet). It was thus fitting that his memorial service should begin and end with live performances by those who knew him closely as musician, choreographer, and dance partner.

The service opened with a plaintive Andante for string quartet that Larry composed in his teens, followed by the first movement of Schubert’s Quartet in A minor (Op. 29). These were played lovingly by a group with whom Larry had performed quintets for about sixteen years as well as his having played piano accompaniment for individuals; among them was my friend, Ruth Wilson, a very “young” 85+ violinist, who had raved about Larry’s sight-reading abilities years ago. After numerous moving remembrances by colleagues, friends, and family, the program ended with a candle-bearing, Jewish folk dance, Likrat Shabat, and Amazing Grace was played on Scots bagpipes. My contribution was to say a few words about Larry as a friend and colleague and hopefully to express for fellow Avistonians something of our feelings and sense of loss. I also wished to tell his family personally about the tribute that we will pay him in dedicating this AVISTA Forum Journal issue to his memory.

The song should never be silent, the dance never still, the laugh should sound like water that runs forever.
Frank Bridge, composer, Two Poems (1915).

Lynn Courtenay
Madison, Wisconsin
IN THE DAYS THAT FOLLOWED THE NEWS OF LARRY HOEY'S TRAGIC DEATH IN FRANCE, I RECEIVED OVER FIFTY E-MAILS FROM AVISTA MEMBERS AND COLLEAGUES. LIKE A GREEK CHORUS, THEY SPOKE WITH A SINGLE VOICE, RECALLING HIS INTELLIGENCE, WIT, AND ENERGY, YET MANY ADDED ANECDOTES ABOUT HIS DANCING, HIS PIANO, OR MOMENTS OF FRIENDSHIP TO COMPOSE A TRULY INDIVIDUAL PORTRAIT. LARRY WAS ONE OF THOSE SCHOLARS THAT YOU WENT OUT OF YOUR WAY TO HEAR AT A CONFERENCE, HIS PAPERS BRIMMING WITH INSIGHTS AND RISKS, DANCING WITH FINELY TUNED PHRASES, AND ALIVE WITH PALPABLE JOY FOR MEDIEVAL ARCHITECTURE, HISTORY, THOUGHT. HIS WORK WAS ALSO SURPRISINGLY VARIED IN SUBJECT AND APPROACH, RANGING FROM HIS WELL-KNOWN AND Meticulous STUDIES OF PIER DESIGN IN ENGLISH GOTHIC TO THE AESTHETICS OF ROMANESQUE ARCHITECTURE. TWO REVIEW ARTICLES IN THE AVISTA FORUM JOURNAL ON CANTERBURY CATHEDRAL (9/1, 1995) AND SAINT-DENIS (12/1, 2000) PROVIDED INVAluable ORIENTATIONS TO INTERPRETIVE TRAFFIC JAMS SURROUNDING WATERSHED GOTHIC BUILDINGS AND REVEALED HIS CAPACITY FOR LUCID SYNTHESIS, BALANCED JUDGMENT, AND FEARLESS CHOICE.

LARRY WORE HIS KNOWLEDGE LIGHTLY, AS HE DID HIS OTHER CONSIDERABLE TALENTS—WHO KNEW HE WAS AN ACCOMPLISHED COMPoSER? SITTING WITH LARRY LATE IN THE EVENING AMONG THE DISHEVELED CHAIRS IN A DESERTED FETZER CENTER ROOM, HIS SHIRT COLLAR OPEN, A BEER PERCHED ON HIS KNEE, AND LISTENING TO HIM MUSE OVER A WALL PASSAGE HERE, CAPITALS THERE, OR THE SUBTLETIES OF A PARTICULAR PIER DESIGN REMINDED YOU JUST HOW MUCH HE KNEW AND HOW ALIVE MEDIEVAL ARCHITECTURE WAS IN HIS MIND. JUST AS HE WAS SOMEHOW ABLE TO MAKE CLOG DANCING FIT MOTOWN RHYTHMS AT THOSE SATURDAY-NIGHT HOPS IN KALAMAZOO, LARRY POSED AND PROCEEDED OUR DISCIPLINE AND ITS METHODS WITH NEW QUESTIONS HARVESTED FROM OTHER FIELDS AND PERIODS. IN PAPERS SUCH AS QUESTIONING THE QUESTIONS ARCHITECTURAL HISTORIANS ASK ABOUT MEDIEVAL BUILDINGS, DELIVERED IN 1995, HE INSISTENTLY ASKED US TO RECONSIDER THE CONCEPTUAL WALLS THAT HOUSE OUR THINKING.

AS I LEFT THE DANCE THAT WARM MAY NIGHT, LARRY’S PARTING WORDS WERE, “I’M GOING TO STICK AROUND A LITTLE LONGER.” WE WISH HE HAD BECAUSE HE WAS SUCH GOOD COMPANY AND HAD SO MUCH TO SAY. BUT AS WE DEDICATE THIS ISSUE TO HIM WITH A COVER OF THOSE ANECDOTES ABOUT HIS DANCING, HIS PIANO, OR MOMENTS OF FRIENDSHIP TO COMPOSE A TRULY INDIVIDUAL PORTRAIT, LARRY WAS ONE OF THOSE SCHOLARS THAT YOU WENT OUT OF YOUR WAY TO HEAR AT A CONFERENCE, HIS PAPERS BRIMMING WITH INSIGHTS AND RISKS, DANCING WITH FINELY TUNED PHRASES, AND ALIVE WITH PALPABLE JOY FOR MEDIEVAL ARCHITECTURE, HISTORY, THOUGHT. HIS WORK WAS ALSO SURPRISINGLY VARIED IN SUBJECT AND APPROACH, RANGING FROM HIS WELL-KNOWN AND Meticulous STUDIES OF PIER DESIGN IN ENGLISH GOTHIC TO THE AESTHETICS OF ROMANESQUE ARCHITECTURE. TWO REVIEW ARTICLES IN THE AVISTA FORUM JOURNAL ON CANTERBURY CATHEDRAL (9/1, 1995) AND SAINT-DENIS (12/1, 2000) PROVIDED INVAluable ORIENTATIONS TO INTERPRETIVE TRAFFIC JAMS SURROUNDING WATERSHED GOTHIC BUILDINGS AND REVEALED HIS CAPACITY FOR LUCID SYNTHESIS, BALANCED JUDGMENT, AND FEARLESS CHOICE.

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As I left the dance that warm May night, Larry’s parting words were, “I’m going to stick around a little longer.” We wish he had because he was such good company and had so much to say. But as we dedicate this issue to him with a cover of those anecdotes about his dancing, his piano, or moments of friendship to compose a truly individual portrait. Larry was one of those scholars that you went out of your way to hear at a conference, his papers brimming with insights and risks, dancing with finely tuned phrases, and alive with palpable joy for medieval architecture, history, thought. His work was also surprisingly varied in subject and approach, ranging from his well-known and meticulous studies of pier design in English Gothic to the aesthetics of Romanesque architecture. Two review articles in the AVISTA FORUM JOURNAL on Canterbury Cathedral (9/1, 1995) and Saint-Denis (12/1, 2000) provided invaluable orientations to interpretive traffic jams surrounding watershed Gothic buildings and revealed his capacity for lucid synthesis, balanced judgment, and fearless choice.

Larry wore his knowledge lightly, as he did his other considerable talents—who knew he was an accomplished composer? Sitting with Larry late in the evening among the disheveled chairs in a deserted Fetzer Center room, his shirt collar open, a beer perched on his knee, and listening to him muse over a wall passage here, capitals there, or the subtleties of a particular pier design reminded you just how much he knew and how alive medieval architecture was in his mind. Just as he was somehow able to make clog dancing fit Motown rhythms at those Saturday-night hops in Kalamazoo, Larry poked and prodded our discipline and its methods with new questions harvested from other fields and periods. In papers such as Questioning the Questions Architectural Historians Ask About Medieval Buildings, delivered in 1995, he insistently asked us to reconsider the conceptual walls that house our thinking.

As I left the dance that warm May night, Larry's parting words were, "I'm going to stick around a little longer." We wish he had because he was such good company and had so much to say. But as we dedicate this issue to him with a cover of those Lincoln nave piers he loved, we also know that his memory and his ideas will be with us for a long time to come. I hope in some small way that this issue and our future pages maintain his vitality and his spirit of the excitement of intellectual adventure.

Michael T. Davis
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800 University Avenue
Madison, WI 53706-1479

AVISTA SESSIONS AT KALAMAZOO
THE MEDIEVAL HOSPITAL AND MEDICAL PRACTICE: BRIDGING THE EVIDENCE. INTERDISCIPLINARY APPROACHES TO THE MEDIEVAL HOSPITAL AND MEDICAL PRACTICE

I: THE INSTITUTIONAL CONTEXT OF THE MEDIEVAL HOSPITAL AND HEALING
Thursday, May 3
10:00 a.m.
Fetzer 1045

Sponsor: AVISTA and MEDICA
Organizer: Barbara S. Bowers (Ohio State Univ.)
Presider: Margory E. Lange (Western Oregon Univ.)

The Benedictine Rule and the Care of the Sick: The Case of Anglo-Saxon England
Maria Amalia d'Aronco (Univ. of Udine)
Legislatring Health: The Case of Minuti and Infirmi in the Medieval Monastery
M.K.K. Yearl (Yale Univ.)

Municipal Hospitals in Thirteenth-Century Europe: How Religious the Model?
James W. Brodman (Univ. of Central Arkansas)

"Pore Impotent Creators": Hospital Benefactors and Beneficiaries in Sixteenth Century Great Yarmouth
Ellie Phillipe (Univ. of East Anglia)

II. MEDICAL PRACTICE—THEORY AND REMEDIES
Thursday, May 3
1:30 p.m.
Fetzer 1045

Sponsor: AVISTA and MEDICA
Organizer: Barbara S. Bowers (Ohio State Univ.)
Presider: Debra L. Stoudt (Univ. of Toledo)

Monastic Pharmacy: Valuable Information for Today's Pharmacists and Historians
John M. Riddle (North Carolina State Univ.)

Challenging the Eye-of-Newt Image of Medieval Medicine
Anne Van Arsdall (Univ. of New Mexico)

The Byzantine Hospital, Tenth to Fifteenth Centuries: Epidemiology and Therapeutic Activity
Alain Touwaide (Univ. of Oklahoma)

Alchemical Medicine, Antiquity, and the Fifteenth-Century Body Politic
Jonathan Hughes (Univ. of East Anglia)

III. RELIGIOUS MILITARY ORDERS' HOSPITALS AND CARE OF THE SICK
Thursday, May 3
3:30 p.m.
Fetzer 1045

Sponsor: AVISTA and Hill Monastic Manuscript Library
Organizer: Theresa M. Vann (Hill Monastic Manuscript Library)
Presider: Theresa M. Vann

Religious Orders and Their Cure to the Poor Sick People, Especially in the South of France, Eleventh to Fifteenth Centuries
Daniel Le Blévec (Univ. Paul-Valéry, Montpellier)
Knights Templars and Hospitals in Medieval Ireland
Dagmar O’Riain-Raedel (Univ. College, Cork)

The Hospital Infirmary of the Knights Templar in the Crusader Kingdom of Jerusalem during the Twelfth and Thirteenth Centuries
Piers D. Mitchell, (Wellcome Centre for the History of Medicine, Univ. of London)
"De domo sancti Lazari milites leprosi": The Lepers in the Ideals fo the Hospitaller and Military Order of St. Lazarus of Jerusalem in the Twelfth and Thirteenth Centuries
Rafael Hyacinth (Centre de Recherche d'archéologie...
IV: THE THERAPEUTIC ENVIRONMENT, ILLNESS, AND THE ARCHAEOLOGICAL EVIDENCE OF HEALING
Friday, May 4
10:00 a.m.
Fetzer 1045

Sponsor: AVISTA
Organizer: Barbara S. Bowers (Ohio State Univ.)
Presider: Carol Neuman de Vegvar (Ohio Wesleyan Univ.)

Excavations at St. Mary Spital, 1999-2000: Burial of the “Sick Poore” of Medieval London
Bill White (Museum of London)

Material Culture of Medieval Hospitals: Some Excavated Finds from English Sites
Geoff Egan (Museum of London)

A Non-Natural Environment: Medicine without Doctors in the Medieval Hospital
Peregrine Horden (Univ. of London)

Historical Research Developments on Leprosy and Lepers in France and in Western Europe
Bruno Tabuteau (CNRS, Univ. de Rouen)

V. THE ARCHITECTURE OF CHARITY I: BUILDINGS
Friday, May 4
1:30 p.m.
Fetzer 1045

Sponsor: AVISTA
Organizer: Lynn T. Courtenay (Univ. of Wisconsin-Whitewater), Marie-Thérèse Zenner (CNRS, Poitiers), Barbara S. Bowers (Ohio State Univ.)
Presider: Virginia Jansen (Univ. of California-Santa Cruz)

Henry of Blois and the St. Cross Hospital in Winchester as an Episcopal/Royal Foundation: Its Purpose, Management, and Architectural Arrangement
Yoshio Kusaba (California State Univ.-Chico)

The Hôtel Dieu of Notre-Dame des Fontinelles in Tonnerre: The Open Ward Plan
Lynn T. Courtenay

The Timber-Frame Quadrangle of God’s House at Ewelme: Life and Lodging in a Fifteenth-Century Almhouse
John A.A. Goodall (English Heritage)

The Spatial Arrangement of Monastic Almonries in the Later Middle Ages: A Closer Look at Westminster Abbey
Neil S. Rushton (Trinity Coll., Univ. of Cambridge)

VI. THE ARCHITECTURE OF CHARITY II: PATRONS AND BUILDINGS
Friday, May 4
3:30 p.m.
Fetzer 1045

Sponsor: AVISTA
Organizer: Lynn T. Courtenay (Univ. of Wisconsin-Whitewater), Marie-Thérèse Zenner (CNRS, Poitiers), Barbara S. Bowers (Ohio State Univ.)
Presider: Lynn T. Courtenay

A Word from Our Sponsor: Patronage in the Medieval Hospital
Carole Rawcliffe (Univ. of East Anglia)

Framing Charity: Guild Hospitals in Later Medieval York
Kate Giles (Univ. of York)

Function and Epidemiology in Filarete’s Ospidale Maggiore
Renzo Baldasso (Columbia Univ.)

THE MEDIEVAL HOSPITAL AND MEDICAL PRACTICE: BRIDGING THE EVIDENCE.
SPEAKERS’ ROUNDTABLE
Friday, May 4
5:30 p.m.
Fetzer 1045

Sponsor: AVISTA
Organizer: Lynn T. Courtenay (Univ. of Wisconsin-Whitewater), Marie-Thérèse Zenner (CNRS, Poitiers), Barbara S. Bowers (Ohio State Univ.)
Presider: Lynn T. Courtenay

Utilization des calcaires parisiens au Moyen Âge dans les monuments de Beauce et de Brie
Annie Blanc (Laboratoire de Recherche des monuments, Champs-sur-Marne)

Confessions of a Material Girl: The Impact of the Properties of Quarryed Stone on the Design of Medieval Sculpture
Janet Snyder (West Virginia Univ.)

Orphan Heads and Neutron Activation Analysis
Georgia Wright (The Limestone Provenance Project)

ABSTRACTS of AVISTA SESSIONS
THE MEDIEVAL HOSPITAL AND MEDICAL PRACTICE - BRIDGING THE EVIDENCE.
INTERDISCIPLINARY APPROACHES TO THE MEDIEVAL HOSPITAL AND MEDICAL PRACTICE
SESSION I:
THE INSTITUTIONAL CONTEXT OF THE MEDIEVAL HOSPITAL AND HEALING

The Benedictine Rule and the care of the sick: the case of Anglo-Saxon England
Maria Amalia D’Aronco (Univ of Udine)

Infirmorum cura ante omnia et super omnia adhibenda est, ut sicut revera Christo eis serviatur, thus begins the XXXVIth
chapter (De infirmis fratribus) of the Regula Sancti Benedicti dealing with the care of the sick. In order to fulfill the commands of their founder, the Benedictine monasteries soon became the most important centres in Europe where medicine was studied and practised. Not only the libraries were enriched with texts that reproduced classic knowledge on medicine, but the monasteries were provided with appropriate places for the care of the sick. In this field a very important role was played by Anglo-Saxon England, the first European country to translate into a vernacular language the Latin texts of medicine and botany. Recent studies have proved not only that the Latin medical material circulating in England during the 9th-10th centuries was directly linked with the monastery of Monte Cassino, but also that the translation of the herbas were made in monastic centres.

Legislatting health. The case of minuti and infimi in the medi-aeval monastery.

M.K.K. Yearl (Yale Univ.)

When Christianity began to enjoy a position of power in late antiquity, church fathers faced the task of incorporating into Christian life many activities that had in pagan society been inex-tricably tied in with religion. Foremost among these was medi-cine. The ultimate decision was that medicine was an unfortunate necessity in the postlapsarian world, and that its application must never compromise the health of the soul. The relation between the two remained problematic – not least for those who had devoted their lives to God; it is thus instructive to explore how the sick (infimi) and those who had bled to prevent illness (minuti) appear in monastic legislation.

In customaries there is surprisingly little to distinguish between infimi and minuti – this despite the obvious difference that the latter were not suffering from any ailment. In either situation, a monk had to request in Chapter a ‘licence’ before going to the infirmary. Both were treated in accordance with St. Benedict’s comments on the infirmi: “Before all things and above all things, care must be taken of the sick, so that they will be served as if they were Christ in person.” Allowances were made for the restoration of strength, including food of a higher quality than usual and exemption from religious duties. At the end of their convalescence, infimi and minuti were required to beg forgiveness in Chapter before being accepted again into the healthy community.

However, if we dig beyond the customaries to evidence of actual practice – accounts, visitation records, and general chapter statutes – we see that infimi and minuti were not regarded as quite the same. Given the delicate state of infirmi, there was little room for flouting medical rules where they did not endanger the health of the patient’s soul. Minuti, however, were not in an imperiled state physically; in my paper I shall argue that the rules dictating when to bleed were made according to the religious rather than the astrological calendar precisely because there was little or no risk of death. Periodic bloodletting was one place where, apart from the operation and provision for recovery, spiritual authority took charge.

Municipal hospitals in thirteenth-century Europe: how religious the model?

James W. Brodman (Univ. of Central Arkansas)

The usual generalization is that the local hospitals established in thirteenth-century France followed a model more religious in character than that prevalent elsewhere. Councils of French bishops that met at Paris in 1212 and 1214 mandated some form of regular ecclesiastical governance and this tradition was reinforced by the reorganizations of local hospitals undertaken by St. Louis. In neighboring Spain, however, there was no such centralized leadership and, as a consequence, similar hospitals were established under a myriad of different regimes and oftentimes hospitalier personnel were mere hired employees, not the pro-fessed religious characteristic north of the Pyrenees. This paper seeks to explore the degree to which regular usages imposed upon Gallic houses of charity a more distinctly religious character than exhibited by those south of the Pyrenees and, if so, how this translated into different levels of care for society’s needy.

“Pore Impotent Creatures”: Hospital Benefactors and Beneficiaries in Sixteenth Century Great Yarmouth

Ellie Phillips (Univ. of East Anglia)

Regional studies of charitable institutions are rare and of the few in existence, most give the impression that charity ended (or began) just before (or just after) the Dissolution of the monas-teries. This paper examines the hospitals and almshouses of Great Yarmouth, Norfolk, on both side of the “Reformation divide”.

The two main establishments (St.-Mary’s and two leper houses) were of early foundation, but at least seven small, highly selective and personally administered almshouses were founded by local people between 1538 and 1562. This paper considers benefactors’ motives, and seeks to discover why there was a per-cived need to move away from “traditional” types of charitable shelter, into an entirely new sort; it also examines the medieval hospitals to see if they adapted or perished.

The wills of around 600 Yarmouth testators have been analysed to see whether local people continued to support St.-Mary’s and the leper-houses (which were run by the municipal authorities), or if the newer almshouses provided an alternative focus for charitable bequests. In a broader sense, individual and corporate concerns regarding institutional provision for the sick and poor tell us much about contemporary ideas regarding poverty and the ways in which the poor were perceived. This regional study examines the changes which occurred before and after the Dissolution: the longer perspective reveals that there was more continuity in the functions of charitable insitutions than has hither-to been considered.

SESSION II :
MEDICAL PRACTICE: THEORY AND REMEDIES

John M. Riddle, (North Carolina State Univ.)

Monastic Pharmacy: Valuable Information for Today’s Pharmacists and Historians

Medieval medicine confronted many of the same medical afflications that we do but modern medicine tends to eschew and distrust all that is not modern. A careful reading of the medical texts written and copied in early medieval monastic libraries reveals that they employed drugs and thought they successfully treated or relieved a number of medical problems. They treated atherosclerosis (using modern terminology), gout, typhus, pattern male alopecia, benign prosthetic hypertrophy, cancer, arthritis, mental depression, and birth control: both contraceptives and abortifacients on one-hand and fertility enhancers on the other. Because past and present medicine was and is practiced more through drug therapy than other various means available (such as surgery, massage, and physical therapy), the question of the effec-tiveness of drugs throughout history is absolutely central to medi-cine’s role. Without interruption from ancient Greece and Rome to the early Middle Ages, intelligent people with empirical skills observed the effects of plants on and in humans and they recorded
their experiences in herbs. More to the point, monastic medical practitioners were sensitive to innovations. When a new use was discovered for a plant, mineral or animal product, they were ready to relate the information for future practitioners so that they might know of the beneficent discovery. Far from being slavish repeaters of classical medical theories and therapies, practitioners were quick and possibly eager to record their medical experiences, albeit modestly. A notable example is St. John's wort (hypericum), employed in classical medicine but not for the purpose for which today it is taken. St. John's wort was first recorded for melancholia (our depression) in a manuscript composed at Lorsch around 800. Other select examples will demonstrate how, in many cases, effective herbal therapeutics were recorded, but over time their uses were not continued in modern Western medical practices.

Specifically, the paper will explore how the early Middle Ages used most of today's laxative medicines. That much is history. In other areas, however, we had to rediscover useful herbs whose knowledge was lost. Examples include saw palmetto, nettle, garlic, and a number of cancer chemotherapeutic agents. The question is whether ancient and medieval herbals contain information about other potentially effective drugs whose use lapsed. In addition to St. John's wort, the Middle Ages had other herbs for mental depression. The history of these herbs might be employed as a tool to nominate "new" old drugs. The early Middle Ages, a period whose drug discoveries have been neglected and even ridiculed by moderns, was, in fact, far from being a "Dark Age." We could truly learn from them not only an appreciation for their history but also our science could benefit from their knowledge and experiences.

Challenging the "Eye-of-Newt" Image of Medieval Medicine
Anne Van Arsdale (Univ. of New Mexico Institute for Medieval Studies)

Although surgery, massive wounds, and infections posed serious problems for the medieval physician, routine health care involved treating nearly the same complaints as today. Most medicinal recipes found in medieval remedy books call for medicinal plants and natural substances, sometimes augmented by a charm or prayer. Ingredients such as eye of newt and tongue of toad are not the norm, yet these ingredients (granted, sometimes present but generally for a good reason) have often become the hallmarks of medieval medicine in the mind of many who are not familiar with the texts. This talk is based on what is found in extant remedy books—generally called herbalists such as in the writings of Marcellus of Bordeaux, the Herbarium of Pseudo-Apuleius (aka the Old English Herbarium), the Leechbook of Bald, and others. It also uses information on folk medicine in the living Hispanic curandera tradition and the modern practice of herbol-ology, which are largely based on the same medicinal plants mentioned in the herbs and used by the medieval physician. Their preparation and use appear to be markedly similar then and now. These modern traditions, with their roots in the medieval world, shed light on how to better understand the often terse, seemingly imprecise medieval remedies. This talk challenges the misleading "eye-of-newt" image of medieval medicine by discussing some common complaints mentioned in the medieval remedy books and the remedies used to treat them as found in these texts, using the curandera's art and modern herbal practice as guides to understanding them.

While the foundation and rules of the Byzantine hospitals begin to be better known, their medical practice is still fully unknown, due to the lack of explicit information. The status of the Byzantine hospitals—the so-called typika—specify, indeed, all the aspects of their creation and function, but do not reflect their daily practice over time. Since no other source explicitly witnesses the daily activity of the exercise of medicine, the topic is ignored in current research.

A careful analysis of Byzantine medical treatises contained in manuscripts allows us, however, to fill this gap. Among their texts, manuscript books contain treatises and recipes presented in their titles as deriving from hospitals. But these works and prescriptions are still unidentified for a great part and, in any case, insufficiently or wrongly catalogued, so that they are unedited and, hence, not taken into consideration in historical research.

This paper will deal with these therapeutic works, addressing the question of the epidemiology of the patient treated in the hospitals where these treatises came from, together with their therapeutic measures provided by the hospitals, focusing on the period from the tenth to the fifteenth century. It will rely on exhaustive inventory and full analysis of the Greek medical manuscripts currently known, and, on this basis, a complete list of the texts coming from, or that can be ascribed to, a hospital, together with their analysis.

In the analysis of these treatises and recipes, I shall take into account the dynamics of the production of medical works, their diffusion from an institution to other ones and the process of accumulation and agglomeration of recipes, trying to distinguish the different strata of the texts currently known, to follow a contrario their process of diffusion and, finally, to reconstitute groups of works by hospital. Once the production of these medical treatises will be reconstructed, I shall address the question of the pathologies for which the recipes were prescribed, together with the treatments, in order to evaluate the epidemiology of the Byzantine empire during the period under study, together with the therapeutic measures at disposal of the physicians, hoping to determine whether the latter were adequate to the former. These data will be confronted with those with other medical texts in order to verify their validity.

It is to be expected that the analysis will reveal a fragmentation of the epidemiology according to the institutions, that is, a specialization of the exercise of medicine by hospitals. But, at the same time, the range of the pathologies under consideration will probably vary according to the hospitals, their origin (imperial or religious foundation, for example), their status and function, their patronage and location in Constantinople, and, as a consequence, the social status of the patients visiting it. In this case, the epidemiology of the population of the Byzantine hospitals and, hence, their therapeutic practice will have to be linked with social parameters.

Alchemical Medicine, Antiquity and the Fifteenth Century
Body Politic
Jonathan Hughes, (The Wellcome Unit, School of History, Univ. of East Anglia)

This study focusses on the two main branches of alchemical medicine, psychological and humoral, as practiced at the courts of Henry VI and Edward IV and in the circle of Sir John Fastolf. The starting point is the royal alchemy commission of 1456 licensing court alchemists to find a cure for the sickness of Henry VI.

The allegorical, alchemical writings, and scrolls of George Ripley, which assimilated the Catalan writings of the Byzantine Hospital of the Tenth-Fifteenth Centuries:
Epidemiology and Therapeutic Activity
Alain Touwaide (Univ. of Oklahoma)
Pseudo-Lull that were being translated and transcribed in this period by a member of the commission, John Kirkby, approached the problem by attempting to address the phlegmatic imbalance from which the king suffered by encouraging an introspection in which the repressed energies of the unconscious, especially the sexual, were acknowledged and integrated to facilitate the rebirth of the king's self and the kingdom.

Another approach was influenced by the rediscovery of the medical/chemical philosophy of Roger Bacon whose writings, including *Opus maius* and *De senectute* were transcribed in the mid-1450s by the Merton physician, John Cokkes. Bacon's concept of the stone involved finding a balance between the four humours through a rational lifestyle, and this teaching was imparted to the young Earl of March in Cokkes' transcription of Bacon's version of the *Secreta secretorum* in 1456. This implies the beginning of alchemists' decision to abandon their attempts to heal Henry VI and to find a new saviour of the kingdom instead. The alchemy commissioners were instructed to search for the stone among the writings of the ancients, and this was manifested in the translation and popularization of the writings of the stoic Roman philosophers, such as Seneca and Cicero, who it was believed, held the secret to a life of wisdom which would lead to a perfect balance between the four humours, and a state of happiness and detachment that was immune to the fluctuations of politics and fortune.

William Worcester, Sir John Fastolf's servant, illustrates this integration of classical philosophy and alchemy. In his medical notebooks BL Cottonian Julius F VII and BL Sloane 4, Worcester noted quotations from Seneca and Cicero on the problems of advancing old age and political insecurity. He also jotted down alchemical recipes and extracts from the alchemical writings of Bacon and Albertus Magnus and took astronomical notes relating to the influence of planets, especially his own ruling planet, Saturn, on humoral imbalance. These interests were to culminate in his translation for Sir John Fastolf of Cicero's *De senectute*, in which he endeavoured to teach his old master (who was preoccupied with the search for lost youth) the wisdom of abandoning the choleric impulses of his prime and to increase the phlegmatic side of his personality and to find a way of life appropriate to his advanced years. The application of alchemical/medical philosophy to Henry VI, the young Earl of March, and to Sir John Fastolf, demonstrates the profound cultural, political and psychological ramifications of alchemy in this period.

**SESSION III:**

**RELIGIOUS ORDERS' HOSPITALS AND CARE OF THE SICK**

Religious Orders and Their Care of the Poor and Sick, Especially in the South of France, Eleventh - Fifteenth Centuries

Daniel Le Blêvec (Univ. Paul-Valéry Montpellier III France)

"I was sick and you visited me." (Mt 25, 36). Comforting the poor and sick in their misery and distributing to them the care that could improve their sad condition, are among the preoccupations linked to one of the seven acts of corporeal mercy as an ideal of Christian behaviour. So it is understandable that monks took it to heart to become involved in this form of charity, over and above their actions in the matter of alms. In the Benedictine world, visiting the sick entailed a precise ritual. The interest of the monks in medicine was expressed in numerous medical manuscripts housed in the abbey libraries. However, after the Gregorian Reform, such practices were tolerated with greater difficulty by the ecclesiastical authorities who sought to restrict clerical competence to the "treatment" of souls. The new monachism (especially Cistercian and Carthusian currents) excluded care of the sick from monastic charitable activities. Neither Provence nor Languedoc escaped from this general trend. On the other hand, the South of France welcomed the new hospital orders. Some took on the mission of caring for the poor and sick: notably the Hospitallers of Saint John, the Antonians and Trinitarians. In Montpellier at the end of the twelfth century, a nursing brotherhood was born, the order of the Holy Ghost. Its implantation in Rome and the support of Pope Innocent III favored its expansion across medieval Europe.

Knights Templars and Hospitallers in Medieval Ireland

Dagmar O’Riain-Raedel (Univ. College Cork, Ireland)

The Knights Templars were introduced into Ireland during the late twelfth century, following the Anglo-Norman invasion of 1169. Initially maintaining close connections with the Anglo-Normans only, their foundations were, as a rule, generously endowed. They were, however, not to become permanent institutions within Ireland and after their suppression in 1312, most of their foundations and possessions were absorbed by the Knights Hospitallers. Equally linked to the Anglo Normans and also to the English "Langue", the Hospitallers were able to maintain a presence in Ireland until the sixteenth century. The preceptories, often built as castles rather than monasteries, were controlled from the chief house of the order, the Priory of Saint John the Baptist at Kilmainham, now within the suburbs of Dublin. In addition, Free Hospitals or Frank-houses, dependent on preceptories were set up in a variety of places around the country.

Given that we have only a few references to Irish people partaking in pilgrimages to Jerusalem and also in the Crusades, the paper will examine the role played by the Military Orders in Ireland. It will become apparent that some foundations were incorporated successfully into the emerging urban centres, while the *hospicii* contributed to the care for pilgrims, travellers and, particularly, the sick. Publications of recent excavations may shed some further light on the contribution of the Military Orders to the fabric of late medieval Ireland.

The Hospital Infirmary of the Knights Templars in the Crusader Kingdom of Jerusalem during the Twelfth and Thirteenth Centuries

Piers D. Mitchell (Wellcome Unit for the History of Medicine, Univ. of London)

The Order of the Temple was the largest of the military orders formed for the purpose of defending the Crusader States in the medieval eastern Mediterranean. They received their name from the position of their headquarters, at the south of the former Jewish Temple in Jerusalem. Over time they built numerous castles and were involved in almost every major battle and campaign fought in the Crusader States over its two hundred years existence. As the site of the infirmary is now a mosque, its excavation has never been undertaken, and our information comes mainly from written sources. Unlike the medicomilitary orders of Saint John, Saint Lazarus, Saint Thomas of Canterbury and the Teutonic Knights, the infirmary of the Order of the Temple did not treat pilgrims or other soldiers, just sick members of its own order. This does give us a very interesting population to study, not least because of the range of weapon injuries we might expect in such an organisation. The hierarchical statutes of the order are thought to be dated to around 1165. The section The Retraits of the Infirmerar Brother gives illuminating information about the dis-
cases, treatments and general approach found in the infirmary. While the infirmarer ran the hospital he was not actually a doctor and the master of the order was obliged to contract a doctor to look after the patients. A number of statutes specifically refer to the techniques used to treat patients such as dietary modification, bloodletting, drugs, and surgery.

Weapon injuries are well described in the contemporary texts and also seen in the excavation of Templar fortifications such as Le Petit Gerin and Safed, where wounds from arrows, sword and mace have been identified. Those soldiers with serious wounds, especially if they became delirious, were managed in a side room near the infirmary. Delirium suggests septicaemia due to infection of the wound. The use of drugs was also referred to and the bill for these was paid by the master of the order. Surgery was practiced and there are references to “cutting into mortal wounds”, while bloodletting was performed on both the sick and healthy.

Infectious diseases were to be expected in this hot climate where dysentery and gastroenteritis were common due to the flies and poor knowledge of food hygiene. Malaria is also referred to and would have been spread by mosquitoes which bred in the many marshes by springs and rivers referred to in the chronicles. If a member of the order developed leprosy he had to leave and join the Order of Saint Lazarus, established specifically to allow those people with the disease to continue to fight with the army in battle but live in seclusion the rest of the time.

This evidence gives a fascinating picture of the suffering of crusading knights in the Order of the Temple, along with the efforts of this twelfth century infirmary to treat their diseases.

“De Domus Sancti Lazari milites leprosi”: The Lepers in the Ideals of the Hospitaller and Military Order of Saint Lazarus of Jerusalem in the Twelfth and Thirteenth Centuries

Rafael Hyacinthe (Centre de Recherche d’archéologie médiévale de l’Univ. Paris 1)

Objective studies on the Order of Saint Lazarus of Jerusalem are rare and barely take into account all the different aspects which are expressed in its definition and evolution from the twelfth to the end of the thirteenth centuries. Historiography has indeed imposed a notion of the Order unacceptable to modern conceptions of the Middle Ages. After a brief account of all the legends attached to it since the eighteenth century, this paper will focus on the precise context of its early history.

Appearing in the Latin Kingdom of Jerusalem in the first half of the twelfth century, the Order of Saint Lazarus is an institutional form of the aspirations and implications of its time. It illustrates a new conception of leprosy within a spiritual notion of assistance. The convent of the Order, its members, and their lives as described by a first rule, give a precise picture of this development. Hints on the impact it may have had on medieval society are given through donations in the West, and the use of new iconographical features (mostly on seals) found across Europe.

The evolution of Saint-Lazarus of Jerusalem in the second half of the thirteenth century is also to be understood in accordance with its situation. In the progressive setback of the crusade in the East, leper knights take part in battles from 1244 to 1253. But if their existence is attested, it nevertheless was not, and must not be, taken into account in the institutional development of the Order, which became progressively more military. Indeed, crusading and assistance are from then on the two parallel purposes of its existence, a sort of special association of the care for the sick and the fight for the faith. This is what shows in a new rule, as well as in legal and official considerations by the papacy, and in precise references to the Order at the end of the crusading era. After the fall of Acre in 1291, the decline of this institution can thus be explained by the disappearance of all these particular and original ideals, which make the Order of Saint Lazarus of Jerusalem more intelligible to modern eyes.

SESSION IV: THE THERAPEUTIC ENVIRONMENT, ILLNESS, AND THE ARCHAEOLOGICAL EVIDENCE OF HEALING


Bill White (Museum of London Specialist Services)

Saint Mary Spital was founded as an Augustinian Priory in 1197 and its attached hospital grew to be the largest hospital in medieval London. Recent excavations have uncovered an enormous number of burials of several different types. There were “high status” burials, including those of clerics (accompanied by chalices and patens made of pewter), lead coffins and individuals accompanied by Papal bullae. Of the unprecedentedly large total of ca. 12,000 burials, about one third were found buried in large pits, each pit containing layers of bodies, up to five individuals lying side-by-side and up to 50 individuals per pit. These appear to be the mass burials of the victims of a major catastrophe in the medieval City of London. However, the bulk of the buried people come from the cemetery for the sick poor who failed to survive their sojourn in the hospital of Saint Mary. This is reflected in the fact that, whereas perhaps one-in-ten of the skeletons excavated from a parish (viz. “attrition”) cemetery will exhibit bone pathology, those from the Saint Mary Spital excavation reveal the presence of pathology in a greater prevalence, at least one-in-four. In this paper, the types of pathology and evidence for surgical intervention will be discussed, as well as the possible reasons for the mass burials encountered.

Material Culture of Medieval Hospitals: Some Excavated Finds from English Sites

Geoff Egan (Museum of London Specialist Services)

The paper will deal with the identification of possible items of medical equipment and related objects among excavation assemblages mainly from medieval hospitals. Medicinal tools from the Middle Ages are currently far less identifiable than ones from the Roman period, and apparently far less common too. The contents of the barber-surgeon’s chest from the wreck of the Mary Rose from the mid-Tudor period give some idea of the range of everyday items available to a surgeon for his more specialized purposes at the very end of the Middle Ages.

Occasionally, objects found in burials in hospital cemeteries in London and elsewhere seem to have served as health aids, like sheet-metal “patches” that were presumably attached to parts of the body where ailments were manifest (hernia trusses, and when on the limbs perhaps poultice holders). On the spiritual side, a range of charms, pilgrim badges and other religious trinkets are also sometimes present in burials. It is unclear whether these Christian “grave goods” were important mementoes to their owners of some specific pious effort during life, like a pilgrimage, and so they were there to emphasize the piety of the dead person, or whether they might have been among the last spiritual comforts of the dying person. A step beyond these pious aids is represented in a few graves (usually those of the well-to-do) at hospitals and other religious institutions in the form of lead bullae. These seals were originally attached to documents of indulgence issued, for a fee, by the papal court of Rome or Avignon. A plenary indulgence
might be thought of as a guarantee of entry into heaven. In the
grave, it would be conveniently to hand at the resurrection of the
dead, when it would be capable of eclipsing virtually all other tang-
gle forms of spiritual help with its long-term benefits. From a
completely different sphere, a rare instance of an identified piece
of folk-medicine equipment from London, is an early fifteenth-
century bowl made from a single piece of jet. Potions held in the
vessel were probably believed to have served to ease problems
with childbirth, which as female burials with full-term fetuses
excavated at the sites of hospitals attest, was a recurrent danger in
the medieval period.

The basic responses to dangers from ailments and dis-
eases in the medieval period are familiar today, though the
emphases differ in the seeking of what we now categorize as med-
cal intervention, and also of both religious and non-religious help
in other ways. Excavated evidence from early hospitals is helping
to focus attention on the curious medieval amalgam of medicine,
religion and folk belief. The fairly slender evidence so far sug-
gests that the two former recourses for the terminally sick, medi-
cine and religion, were routinely promoted in the hospitals of the
Middle Ages, while the third way of folk medicine is, unsurpris-
ingly, elusive in that context for the archaeologist.

**A Non-Natural Environment: Medicine without Doctors in
the Medieval Hospital**

Peregrine Horden (Univ, of London)

Medieval hospitals tend to be evaluated according to
whether or not their inmates had access to physicians. The pres-
ence of doctors has become the touchstone of hospitals as centres
of care rather than care, medicine rather than mere nursing, con-
cern for the body as well as the soul. That view of the importance
of doctors has also been a way of drawing regional comparisons,
for example between the heavily medicalized hospitals of
Renaissance Italy and the doctorless almshouses and hospices of
later medieval England. My paper will take a different view of
doctors. It will attempt to restore to due prominence a medieval
understanding of the determinants of health: the post-Galenic the-
ory of the non-naturals. It will suggest that this theory, if taken as
seriously now as it was in pre-modern times, gives us a definition
of medicine that goes well beyond the activities of doctors, and
that allows medical value not only to nursing but to many other
aspects of the medieval hospital, such as its liturgy and its reli-
gious images. Following on from recent work by Carole
Rawcliffe, Faye Getz and others, I would like to propose a con-
ception of the ideal medieval hospital as a "total therapeutic envi-
nronment." In such an environment religion and medicine, regimen
and treatment, medication and ambience, doctors, priests and
attendants, all have a possible role in relieving sickness. But doc-
tors have been dethroned as the decisive marker. Hospitals can be
evaluated and compared (with each other and with the ideal type)
according to a bundle of criteria. The result might be a more real-
istic view of what patrons and patients expected of them.

**Historical Research Developments on Leprosy and Lepers in
France and in Western Europe**

Bruno Tabuteau ( CNRS Univ. de Rouen France)

Leprosy, described by the romantic historian Jules
Michelet as the "dirty residue of the Crusades", has, since the
eighteenth century been characterized continuously in terms of
excesses of all kinds, that, in turn has fed the black legend of the
Middle Ages. Only in the wake of "the new history" in France has
modern historical research reopened the sinister file of medieval
leprosy. This movement started in the early 1980s as part of the
broader context of research on hospital history and public assist-
ance. The prospect for total history led French researchers to take
the heuristic step based on the maximum opening of the documen-
tary corpus, and convened all historical and anthropological sci-
dences, among which archaeology must hold a place of choice. It
also encouraged scholars to develop profitable exchanges with
their European colleagues, within the framework of the Group of
Göttingen since 1995, through comparison of their respective
studies at specialized scientific meeting. Such comparative
encounters afforded opportunities to check epistemological and
methodological validity across the linguistic barriers and academic
traditions. Similar dynamics on the scale of Western Europe,
marked by a flowering of university work and solid scholarship,
further reconfigured the landscape of the history of leprosy by
including/understanding it as part of the larger sphere of social
and mental structures. The medieval leper is now fully involved in
the multiform evolution of complex societies, and is no longer the
tragic and eternal pariah of an immutable universe of coercion.

**SESSION V: \nTHE ARCHITECTURE OF CHARITY I: BUILDINGS**

**Henry of Blois and the St. Cross Hospital in Winchester as an
Episcopal/Royal Foundation: Its Purpose, Management and
Architectural Arrangement**

Yoshio Kasuba (California State Univ.-Chico)

The Hospital of Saint Cross is situated extra-muros of
medieval Winchester along the old Roman road to Southampton
and the River Itchen. It is still a functioning almshouse as it
escaped the dissolution in 1535 at the time of the Reformation by
King Henry VIII and Cromwell. It was founded ca. 1132 by
Henry of Blois, Bishop of Winchester (1129-71), and a grandson
of William the Conqueror. Its foundation purpose was to take care
of thirteen ailing brothers and to feed 100 poor, but worthy people
a daily meal. In the fifteenth century Cardinal Beaufort added the
second foundation, the Almhouse of Noble Poverty, and enlarged
the hospital.

Soon after the original foundation, its management was
 transferred to hospice orders, first to the Knights Templar and,
second, to the Hospitaliers (the Order of Saint John of Jerusalem).
At the time of these transfers, Henry of Blois provided the
Hospital and its management with a number of endowments. They
could also have contributed to the building of a magnificent three-
story cruciform church, worthy of a foundation by Henry of Blois.

The architectural arrangement at the time of the original
foundation is not clearly known, except that one rib-vaulted bay
remains abutting the south transept. A cloister and domestic quar-
ters must have existed to the east and south of the present church.
This church was commenced ca. 1160, including the rib vaulted
choir, the crossing, lower walls of the transepts and the first nave
bays and their aisle walls and vaults, all completed by about 1170.
The transepts were vaulted in the late twelfth century, the nave
arcade in the second quarter of the thirteenth and vaulted and
completed in the fourteenth century. The choir is exceptional with
main arcade supports and shafts of Purbeck marble.

This paper examines these characteristics of the Hospital
of Saint Cross in the context of Bishop Henry of Blois, an impor-
tant ecclesiastical and royal figure, as the founder in the twelfth
century, the early management by the hospice orders, and the
architectural setting to function as a charitable almshouse, a wel-
fare center of medieval Winchester.
The Hotel Dieu of Notre Dame des Fontinelles in Tonnerre: The Open Ward Plan

Lynn T. Courtenay (Univ. of Wisconsin-Whitewater)

The Hotel or Maison Dieu at Tonnerre in Burgundy belongs to a popular form of aristocratic architectural patronage. Notre Dame de Fontinelles was established in 1293 by Marguerite of Burgundy, widow of Charles of Anjou and second daughter of Hugh (Eudes) of Burgundy and Mathilde de Bourbon. The foundation follows a well-established pattern for the fiscal endowment of charity, or in the language of the period, the performance of the seven acts of mercy, chief among them the care and shelter of strangers, the infirm and the poor. During the high and late Middle Ages, a number of plans evolved to serve the spiritual and particular physical needs of the inmates who received charity, their patrons, and the caregivers who served the institution.

Typologically, one of the earliest hospice plans in northern Europe was the ubiquitous rectangular ailed hall, such as the infirmary halls incorporated into monastic plans like Cluny II. Similarly, the plan of Fontinelles consists of a single open hall preceded by a porch (destroyed) and closed at the far end by a one-bay chapel and polygonal apse. Originally, two narrow passages connected the ward and chapel to separate ranges, one for the foundress and a separate block for the attendant brothers and sisters who served the institution. The whole was then enclosed by a wall.

The great infirmary hall, which is my focus, is remarkable in its scale and spatial unity, since the interior span without arcades exceeds 18 meters. While the plan itself is quite simple, the internal organization of the space and the demarcation of sacred and secular areas within this very large hall, indicates the relative importance of specific features such as fenestration, acoustics, visual embellishment, and the practical aspects of circulation and accessibility. This paper will explore these features and will suggest how a hierarchy of values, social, religious, and medicinal are reflected in the building.

The Timber-France Quadrangle of God’s House at Ewelme: Life and Lodging in a Fifteenth-Century Almshouse

John Goodall (Independent scholar and Consultant to English Heritage)

God’s House at Ewelme is a most extraordinary survival from the Middle Ages. It was founded in 1437 by the Earl and Countess of Suffolk, William and Alice de la Pole, as an almshouse supporting a community of two priests and thirteen poor men in perpetuity. In return for the charity offered to it, this community was to serve a chantry chapel attached to the village parish church and offer prayers for the living and dead. The foundation of God’s House took more than twenty years to realise, and over that period it came to incorporate a school served by one of the community’s priests. Almost five hundred and fifty years later this institution still functions in the buildings originally erected to house it.

This paper will discuss the surviving fifteenth-century domestic buildings of God’s House, one of the most magnificent and complete ensembles of their kind to survive from the period. As much as any documentation, they offer invaluable evidence for the physical realities of life in an almshouse and chantry foundation in the late Middle Ages. It will focus in particular on the set of timber-frame almsmen’s cottages arranged around a quadrangle at the heart of the complex. This quadrangle follows an unusually coherent design in which all the chief elements of the plan and elevation are set out according to regular carpentry measurements. Its architecture also makes use of brick, a very unusual material in the south-east of England at this date and one which associates the quadrangle with some of the most important court-connected architectural commissions of the mid-fifteenth century in England. The continued use of the quadrangle by an almshouse community raises interesting issues about the preservation of historic domestic buildings and the manner in which they should be adapted to suit modern needs.

The Spatial Arrangement of Monastic Almonries in the Later Middle Ages: A Closer Look at Westminster Abbey

Neil S. Rushton (Trinity Coll., Univ. of Cambridge)

This paper will attempt to outline the importance of the spatial arrangements of both the Great Almonry and the almshouse of King Henry VII at Westminster Abbey in the later Middle Ages. The main distributions of poor relief from the alms took place within the courtyard of the Great Almonry, which stood without the west gate of the precinct. Evidence from the internal account rolls of the abbey demonstrate the type of provision being made to the sick and the poor at the almonry, and suggest that monastic alms giving was not necessarily the indiscriminate free-for-all it has often been described as, but was actually more systematic in its provision of social welfare.

The almshouse of King Henry VII stood within the west gate of the abbey and housed twelve poor/sick/elderly men. This was a much more exclusive establishment than the Great Almonry and it is suggested in this paper that the royal almshouse functioned as a type of symbolic “blue-print” for the way late-medieval almshouses should operate.

SESSION VI:
ARCHITECTURE OF CHARITY II: PATRONS & BUILDERS:

A Word from our Sponsor: Patronage in the Medieval Hospital

Carole Rawcliffe (Univ. of East Anglia)

Historians of medieval hospitals have long recognised that spiritual therapeutics played a crucial part in all but the very humblest of institutions. Since medicine for the soul took priority over care for the body, the celebration of the Christian liturgy (itself deemed to offer physical health) dictated the way hospitals were designed, staffed and organised. The salvation of the patron, as much as that of the humble patient, was at stake: inmates, as well as clergy, sisters and lay brethren, were required to intercede on a daily — sometimes even hourly basis on behalf of their benefactors. Calculated with mathematical precision (especially once the Church’s teachings on purgatory had seized the lay imagination), the round of prayer, requiem masses, obits and canonical hours took place against a visual background which emphasised the symbiotic relationship between rich and poor, while also advertising the charity and piety of donors. The hospitals of Beaune, Lübeck, Bruges and Florence provide lavish and aesthetically stunning examples of patronage at work, but more modest English hospitals and almshouses (Stamford, Ewelme, Norwich, Bristol and London) are no less instructive in this regard.

A study of the iconography of patronage in the medieval hospital helps us further to understand the vital part played by such institutions in wider spiritual life (and explains why hospitals suffered so badly at the hands of Protestant reformers). It further illuminates the pervasive influence of the culture of “good lordship” and provides powerful evidence of the ways in which the struggle for economic survival led many hospitals to invest so
Filarete ensured the disposal of organic waste and, through this, would have liked. The Duke wanted his hospital to be beautiful and for the hospital, which his patron had proposed. As Filarete writes in his Trattato di architettura, "the hospitals in Florence and Siena... did not seem as suitable to him [the Duke] as he would have liked." The Duke wanted his hospital to be beautiful and capable of fulfilling the needs of the infirm, both men and women, and of the children born out of wedlock." Above all other requirements, "he and the others made a great point of the convenience and cleanliness of the latrines." Devising an efficient sewer system based on canals running through the foundations, Filarete ensured the disposal of organic waste and, through this and other technical solutions, the general sanitary conditions of the building. Thus, implementing his ideals of functionality and integrating Renaissance medical and epidemiological notions, Filarete’s innovative design rendered the Ospedale Maggiore capable of offering an environment proactive toward the recovery of its patients.

SESSIONS ON STONE

A SCIENTIFIC APPROACH TO MATERIAL CULTURE AND RESOURCES: RESOURCES AND TECHNOLOGY OF MEDIEVAL STONE
Saturday, May 5
10:00 a.m.
Fetzer 1010

Sponsor: International Center of Medieval Art; The Limestone Provenance project; AVISTA; and the Samuel H. Kress Foundation
Organizer: William W. Clark (Queens Coll., CUNY) and Nancy Wu (The Cloisters Museum)
Presider: William W. Clark

Utilization des calcaires parisiens au Moyen Âge dans les monumets de Beauce et de Brie
Annie Blanc (Laboratoire de Recherche des Monuments, Champs-sur-Marne)

Confections of a Material Girl: The Impact of the Properties of Quarried Stone on the Design of Medieval Sculpture
Janet Snyder (West Virginia Univ.)

Orphan Heads and Neutron Activation Analysis
Georgia Wright (The Limestone Provenance Project)

"COLUMNS FINE AND EXCELLENT": MEDIEVAL STONE REVISTED I
Saturday, May 5
1:30 p.m.
Fetzer 1010

Sponsor: International Center of Medieval Art
Organizer: William W. Clark (Queens Coll., CUNY) and Nancy Wu (The Cloisters Museum)
Presider: Nancy Wu

Laser Treatment of the Central Portal of the Cathedral of Amiens
Jonathan Hoyte (Lithos, s.n.c.)

Architectural Sculpture from the Mid-Twelfth-Century Cloister of Saint-Maur-des-Fossés
Danielle Johnson (Limestone Provenance Project/Wells College in Paris)

Setting a Standard: The Economics of Stone Construction in Twelfth-Century France
Vebeke Olsen (Univ. of California, Santa Barbara)

"COLUMNS FINE AND EXCELLENT": MEDIEVAL STONE REVISTED II
Saturday, May 5
3:30 p.m.
Fetzer 1010

Sponsor: International Center of Medieval Art
Reims Cathedral Stone: A Critical Study and Recent Observations
Bruno Decrock (Mission pour le Ministère de la Culture)
Masons' Marks: Their Value for Architectural History
Jennifer Alexander (Univ. of Nottingham)
At the Interface of Late Gothic Architecture and Sculpture: Disciplines and Freedoms in the Shaping of Stone
Nigel Hiscock (Oxford Brookes Univ.)
Respondents: Charles T. Little (The Metropolitan Museum of Art, New York) and Lore Holmes (Limestone Provenance Project)

ABSTRACTS

A SCIENTIFIC APPROACH TO MATERIAL CULTURE AND RESOURCES: RESOURCES AND TECHNOLOGY OF MEDIEVAL STONE

Confessions of a Material Girl: The impact of the properties of quarried stone on the design of medieval sculpture
Janet Snyder (West Virginia Univ.)
Rows of over-lifesize column-figures elegantly dressed in contemporary court clothing are a stunning new feature of more than thirty church portal sculpture programs installed in northern France between the 1130s and the 1160s. Though distinctive stylistic traits of carving can be observed in the sculpture made during these thirty years, in each sculpture program the artist-masons represented the real garments with an attention to detail normally confined to small-scale sculpture. The details of costume tie this sculpture together into a recognizable body of work, despite disparate styles of carving used. This paper will examine some of those details.

Not only are the same textiles and clothing represented across northern France, the fabric of the sculpture, the limestone itself, also contains a common thread. The sculpture at churches which are rather far apart appears to have been made by different artist-masons who imported limestone from quarries in the environs of Paris to use for the sculpture. One bed of the lutetian calcaire grossier found in some of the quarries exposed by the erosion of the Seine in the region of Paris, the liais de Paris, was preferred for its fine grain, hardness, and dimensions, as the best stone for architectural sculpture during the twelfth century in northern France. The database of the Limestone Sculpture Provenance Project, containing the results of the analysis of more than 2,500 samples of limestone, can be used effectively to determine the standard dimensions of the spaces designed to accommodate column-figure sculpture along the jambs of twelfth-century church portals.

Laser Treatment of the Central Portal of the Cathedral of Amiens
Jonathan Hoyte (Lithos, s.n.c)

The recent cleaning of the west facade of the Cathedral of Amiens has brought about a clearer legibility and a means of reinterpreting much of the sculpture of the facade and its three entrance portals. Such a new perspective of the statuary is of great interest to medieval historians and art historians alike. However, since the results of the cleaning process affect the final appearance, and, hence, the final interpretations of that monument, the methods of treatment concern not only the conservator, but also those who later search to decipher that which has been brought to light.

The use of laser cleaning has become a particularly popular tool in the cleaning of historic monuments in much of Europe. Gaining more and more acceptance as a useful instrument, particularly in France, lasers have been used on many medieval monuments, and will most likely continue to be used for the treatment of many more. Based on principles of the interaction of light and color, the laser offers a non-physical method for the removal of dirt layers, which is especially useful where the surface is fragile or heavily degraded. However, the full effects of laser cleaning have not yet been completely realized and lasers, as of yet, can not be used in every cleaning situation.

The laser cleaning of the bas-reliefs of the central portal of the Cathedral of Amiens allows us to look at some of the short-term effects of laser cleaning. Its use was necessitated by the delicate nature of the stone’s surface. This laser treatment allowed for further knowledge of the technique to be gained, while highlighting some of the more basic elements inherent in this method. This presentation wishes to discuss these results in order to give the historian the background to be able to recognize the use of laser cleaning on monuments that might come under his or her gaze, and to realize how this cleaning method can be advantageous while also somewhat limited.

Architectural Sculpture from The Twelfth Century Cloister of The Abbey of Saint-Maur-des-Fossés
Danielle V. Johnson (Limestone Provenance Project and Wells Coll. in Paris)

There exist, today, three statue-columns and two double capitals from the twelfth-century cloister of Saint-Maur-des-Fossés, an important abbey founded to the west of Paris, in 639, by the Empress Nanthilde. These elements date from ca. 1140/50 and are, virtually, unknown to medieval art historians, although Barbara Dirlam included them in her Connecticut College masters thesis in 1967 and a catalogue published in 1983. Two statue-columns that represent the Fast of Saint Nicholas and a prophet (or an apostle) are stored in the lapidary reserve of the Musée Villa Medicis in La Varenne, a suburb located near Saint-Maur.
These two columns are virtually intact. That third statue-column that has been heavily restored represents Saint Michael and is in the lapidary reserves of the Museum of Dumbarton Oaks in Washington, D.C. Pamela Blum devoted an article on the restorations of this statue-column in the 1978 issue of Gesta. The two double capitals are decorated with vegetal motifs.

The object of this paper will be to present these sculptures to the audience at Kalamazoo and to place them within the architectural and sculptural context of the second quarter of the twelfth century in the Paris region. The figures of the statues are set in the vertical axis of the column and their feet are placed on a marmouset. The bodies are rigid and compact, although the heads and upper bodies are slightly turned. The treatment of the drapery is highly calligraphic, although the pleats of the robes of the statues gracefully define their legs and knees. These figures may be compared with statue-columns from the west façade of Saint-Denis (based on drawings by Montfaucon) and with those of the archivolt of the Porte Sainte-Anne at Notre-Dame de Paris.

Each double capital is decorated with a different foliate pattern. On one of the capitals three levels of small polylobed leaves create a horizontal rhythm around the basket. On the other, long branches that terminate in large leaves are placed in the upper and lower zones of the capital. They are bonded by thick sculptured rings. The decor of these two capitals may be compared with capitals from the choirs of Saint-Denis and of Saint-Martin-des-Champs in Paris.

The quality of the statue-columns and the double capitals play an important role in the development of Early Gothic sculpture in the Île-de-France.

Setting a Standard: The Economics of Stone Construction in Twelfth-Century France

Vibeke Olson (Univ. of California, Santa Barbara)

In the early twelfth-century churches in the region of the Île-de-France, there was a widespread tendency to incorporate long, slender colonnettes into the basic design of portal embrasures, window splays and wall responds, resulting in what could be considered a regional style based in large part on this specific element. These small, detached colonnettes articulate both the interior and exterior of many of the first generation Gothic buildings of the region. Inside, they frame windows and define bays and arcades. Outside, in addition to framing windows, colonnettes function as the intermediary framing elements between the jamb statues, forming an essential part of a Gothic portal.

Why do we find a sudden flourishing of detached (en délit) colonnette construction ca. 1140; and what is the significance of this new architectural trend? In this paper, I examine the burgeoning of this fashion for en délit construction. In so doing, I will demonstrate that the en délit colonnette was more than just an aesthetic solution to a design problem, but an economically motivated one as well. As an element which stands apart from the wall, the en délit shaft could be standardized and mass produced at the quarry before shipping to the building site. By cutting and shaping the stone at the quarry before shipping, the weight of the stone and, therefore, the cost of transport would be significantly reduced. Additionally, standardization and mass-production result in the creation of independent and non-location-specific units that can be set in place at any location in any order at any building site, thereby reducing both time and labor. I propose, then, that it is this economic advantage which contributes to the en délit colonnette becoming such an important part of the first generation Gothic architectural vocabulary.

“COLUMNS FINE AND EXCELLENT”:
MEDIEVAL STONE REVISTED II

Masons’ Marks: Their Value for Architectural History
Jennifer Alexander (Univ. of Nottingham)

Marks made by stonemasons as part of the construction process are proving to be a valuable resource for architectural historians examining medieval buildings. These marks were involved in a number of different ways that need to be identified before their meaning and purpose can be demonstrated. Some marks were made to enable non-literate individuals to follow instructions, others allowed them to obtain information about the building materials. These two types are assembly marks, which follow a discernible sequence, and enabled complex sections of work to be assembled without further, or written, instructions, and quarry marks that revealed the source of the stone, its size as a measured block, and sometimes its intended destination. Both of these mark-types are related to marks used in other spheres, by carpenters for example, by stained glass workers.

The third group, that is the most enigmatic, is a form of cipher used to identify the output of individual stonecutters. These marks have been described for some considerable time but the processes involved in their use have only now been discovered. The problem has been that earlier writers assumed that these marks were autograph and remained the property of one individual, whereas we now recognize that this was not the case, and that the same mark was used by a number of unrelated stonemasons spread over time and distance. The theory underpinning this idea derives from the realization that the scheme stands outside literacy and that the marks only have meaning within the structure in which they were used. It is now recognized that a large number of different systems involving “masons’ marks” will have existed over the extremely long time that marks have been used.

It is now possible to move on and create ways of exploiting these marks as part of the archaeological analysis of standing structures. Within sections of buildings that have a stylistic coherence it is possible to demonstrate the distribution patterns of marks, and from these, examine the evidence for progress of construction, importance of building breaks, and provide some estimate of the size of the workforce. This paper will present the evidence for distinguishing between the different mark types and will show the methodology and the results of the analysis of two thirteenth-century choirs, Lincoln’s Angel Choir and the choir of Southwell Minster.

VILLARDIANA

THE PORTFOLIO OF VILLARD DE HONNECOURT
Abstracts of Papers presented at the Thirty-Fifth International Congress on Medieval Studies Western Michigan University 2000
Sponsor: AVISTA
Organizer: Carl F. Barnes, Jr. (Oakland Univ.)
Presider: Carl F. Barnes, Jr.

Villard’s Drawings of Reims Cathedral
William W. Clark (Queens Coll., CUNY)

Few of the drawings in the portfolio of Villard de Honnecourt have elicited as much attention as the six pages illustrating views and details of Reims Cathedral. The discrepancies
between Villard's drawings of Reims and the actual building have puzzled commentators for more than a century. The traditional explanation for these discrepancies is that Villard either drew from the building itself, but misunderstood what he saw; or that he drew details that were altered after he made his drawings. The opposite may be true: that Villard drew sometime after his visit(s) to Reims what he remembered as the most important features of the building, the very features that are distinctive aspects of this singularly influential Gothic structure.

Geometry and Symbolism in Villard's “Tomb of a Saracen”
Roland Bechmann (Atelier d'Aménagement et d'Architecture, Paris)

Villard’s drawing of the “sepulture d’un sarrazin” on folio 6r of his portfolio is much more than his rendering of a pagan tomb he encountered if, indeed, the drawing is of an actual tomb. Careful analysis of the drawing reveals that the geometry that underlies it is that used elsewhere by Villard—especially the “long square” (carré long, a rectangle whose long dimension is twice its short dimension)—as part of his mnemonic technique. The drawing contains a number of symbols associated with the Compagnons du Devoir and the Free Masons. For example, for the Compagnons “sarrazin” designated Hiram, the architect summoned by Solomon to build his great temple in Jerusalem. It may be that Villard was secretive in his comment that he had seen the tomb “une fois,” that one time during his initiation into the Compagnons du Devoir.

Masons’ Marks in the Portfolio
Jennifer S. Alexander (Univ. of Nottingham)

Folio 32v of Villard’s portfolio has a series of moldings marked with a variety of ciphers at the foot of the leaf. There is also a plan of a pier construction from segments that is similarly marked. The purpose of the marks on the pier segments can be elucidated by comparison with known practices from other sites. The marks served to ensure that the asymmetrical components of the pier were assembled correctly. The marks shown on the moldings are less easy to explain, but they can be shown to belong to the same category of instructional marks as the pier segment marks. The 1920s restoration of Reims provided a unique opportunity to examine the stonework in detail and sufficiently accurate recording of the material found enables connections to be made between the folio 32v molding drawings and the fabric of the cathedral.

Costumes in the Portfolio
Janet Snyder (West Virginia Univ.)

In the portfolio of Villard de Honnecourt, as elsewhere in thirteenth-century illustrations, clothes and textiles convey meaning and provide information about the people who wear them. Deciphering this vestimentary vocabulary can provide the means for modern researchers to understand more about what the artist intended observers to know about the persons represented. Villard dressed many of his figures in actual clothing, using recognizable visual references. Other costume elements appear to have been copied from the draperies of antique statues. Since we know that Villard’s architectural drawings varied from their actual subjects, the question is, “Why should we believe his human clothed figures?” This paper will support acceptance of the fictive clothing represented by Villard by presenting similar contemporary representations in other media.

WHAT’S IN A NAME?

THE PORTFOLIO OF VILLARD DE HONNECOURT
Carl F. Barnes, Jr. (Oakland University)

One of the problems presented by the assemblage of thirty-three parchment leaves with drawings, recipes, and geometric formulae shelved as MS Fr 19093 in the Bibliothèque Nationale in Paris is what to call it. It has had, and continues to have, numerous appellations for two reasons. The first is that no one knows what its actual purpose was. The second is that different authors have named it depending on what they wanted it to be.

Whatever the designation given, it universally includes the name Villard de Honnecourt, overlooking—or worse, knowing but ignoring—the fact that the assemblage contains inscriptions by at least four different scribes, geometric formulae by at least two different hands, and drawings by an indeterminable number of contributors.

What did Villard de Honnecourt himself term this ensemble? For him, it was a book (livre). As I have demonstrated elsewhere, Villard thought of it in bibliographic terms, given his references to pages (pagnes) and leaves (feuilles). Today, no one or virtually no one refers to the assemblage as a “book.”

What, then, should it be called? What designation can be found that is both accurate and neutral? One can begin to find the proper term by the process of elimination. The most misleading designation, by far, is Hans Hahnloser’s Bauhüttenbuch or its equivalents in French, livre de chantier, and in English, “lodge-book” or “shop manual.” These terms do not describe the physical composition of the assemblage but, rather, define what Hahnloser believed its purpose to have been. Those who followed his lead made the assemblage much more formal than it actually is, using such terms as “treatise” while referring to its “chapters” and its encyclopedic character.

Anyone who holds to the Bauhüttenbuch-treatise-encyclopaedia designation should memorize the following words from that great encyclopedist, Eugène Emmanuel Viollet-le-Duc: Le carnet (de Villard de Honnecourt) n’est...ni un traité, ni un exposé de principes classés avec méthode, ni un cours d’architecture théorique et pratique, ni le fondation d’un ouvrage (sur l’architecture).

French authors have traditionally used one of two designations, album or carnet, the latter currently in vogue. According the Petit Robert, an album is “un cahier ou classeur (=porte feuille ou meuble à compartiments qui sert à classer des papiers) personnel destiné à recevoir des dessins, photos, des graphes, des collections diverses,” and a carnet is defined as “un petit cahier (=assemblage des feuilles de papier cousues, agrafées ou pliées ensemble et munies d’une couverture) de poche destiné à recevoir des notes, des renseignements.” In a literal sense, the Villard assemblage is not now and never has been an album because it is not divided into pockets or sections. The term carnet is preferable as an accurate and neutral description of the assemblage as it now exists, although when the assemblage left Villard’s possession the leaves were not stitched together.

American and English authors have favored the designations “manuscript,” “modelbook,” “notebook,” and “sketchbook,” the latter being the most commonly used. The Villard assemblage was handwritten and hand-drawn, thus is technically a “manuscript.” However, to most medievalists, the word “manuscript” conjures up an image of a formal production, such as a sacramentary or a book of hours. The Villard assemblage may have been intended as a modelbook or aide-mémoire, but neither that intention nor its eventual use as such can be proven. “Notebook” and
“sketchbook” are not acceptable because each connotes a bound assemblage of blank leaves, such as one might buy in an office supply store, awaiting sketches and/or text. This was not true of the Villard assemblage; to imply so is to deny reality.

What term should be used in English? I propose “portfolio,” drawing in part from the French definition of *album*. At the Thirty-fifth International Congress on Medieval Studies in Kalamazoo in May 2000, I served as organizer and presider of an AVISTA session. In doing so, I insisted that the speakers in my session uniformly use the designation “portfolio.” Speakers in other sessions variously used “manuscript,” “modelbook,” “notebook,” and “sketchbook,” although some used “portfolio.” In questions following the papers presented in my session, a member of the audience asked why the speakers used the term “portfolio,” commenting that to him it was too formal a designation, suggesting the august credentials of a diplomat. If “portfolio” had only the sense of “the office or post of a cabinet member or minister of state,” the word would not apply to the Villard assemblage—unless he went to Hungary as ambassador plenipotentiary from the court of France. A more basic and more-widely understood definition of “portfolio,” as given in the *American Heritage Dictionary*, is “a portable case for holding material, such as loose papers, photographs, or drawings” or “the materials collected in such a case, especially when representative of a person’s work.”

This describes precisely what the Villard assemblage was and is, even though the leaves have now been stitched into the leather cover. One of the problems is that most people who write about the contents of the Villard assemblage have not seen the original. Most people know the drawings only from one or more of the eight facsimile editions and these publications are all rather formal productions. They conceal the reality that the Villard assemblage is a small (+/- 6-1/2 x 10-1/2 in.) portable object that Roland Bechmann called a “pocket book.” It was carried about in a pocket in Villard’s garments, and the leather cover served to protect the parchment leaves during Villard’s travels.

If there is any group, anywhere, whose members should at all times strive for accuracy in every aspect of their dealings with and studies of the Villard assemblage, it is the Association Villard de Honnecourt for the Interdisciplinary Study of Medieval Science, Technology, and Art. For Avistonians and all others who concern themselves with Villardiana, a start towards such accuracy would be to adopt the term “portfolio” to designate the Villard assemblage accurately and without prejudice.

NOTES


3. For example, John H. Harvey, *The Education of the Mediaeval Architect*, *Journal of the Royal Institute of British Architects*, 53 (1945): 230-234, esp. 232, where the Villard assemblage is characterized as a “practical encyclopaedia of building arts and crafts compiled for the permanent ‘lodge’ of a great church…”


7. Observation made by M. Roland Bechmann during the question period after the session.

**VILLARD’S LITERACY: A REVIEW**

Carl F. Barnes, Jr. (Oakland University)


In an *1985 article* on a fourteenth-century building contract, Franklin Toker noted the changing interpretation of Villard de Honnecourt in these terms:

“To the 19th century Villard was the most celebrated of Gothic architects. In recent literature he appears as no architect at all, but as a master mason, a carver, a metalworker curious about building, an administrator, and even as a cleric dabbling in architecture.”

More recently, the same revisionist interpretation has taken place regarding Villard’s education. From the earliest days of Villard literature in the nineteenth century, writers have assumed that Villard was well educated. Indeed, the first serious commentator on the portfolio, Jules Quicherat, in 1849, created the tradition that Villard was a “French Vitruvius.”

In 1922 Louis Gillet wrote of Villard, “C’est un homme qui écrit le latin d’une manière qui embarrasserait plus d’un des ses confrères modernes.” This view has continued and has become more firmly fixed. Hans R. Hahnloser, foremost of the interpreters of the Villard portfolio, claimed in 1935 that “Villard had enjoyed a Latin schooling.” This was followed fourteen years later by Louise Lefrançois Pillon who argued that Villard was so interested in technical things that he must have encountered the *trivium* in a university setting.

More recent interpreters have been yet more forceful. Marie Odile Terreiro made the unqualified claim that Villard was “shaped in a monastic school...and [he was] undoubtly initiated in Latin.” This view reached its greatest absurdity with Eugène Coscoscán de Várállia, who claimed that “Villard de Honnecourt wrote in Latin in his notebook and this implies that he could follow the arguments of the ‘schools.’” I took this author to task for his claim, and made a plea for accuracy.

In my 1982 bibliography of Villard, I challenged the idea that he knew *any* Latin, save the word “Leo.” More recently, I have questioned even that supposition. The word “Leo” appears only on the recto and verso of fol. 24 and is in a calligraphy different from anything attributed to Villard or his “followers.” The word seems to have been added to the folio long after the medieval period, probably in 1533. The style of the letter L in “Leo” is identical to the L in an inscription added to fol. 8r in that
If Villard knew no Latin, then he surely must have known French or the Picard dialect thereof. This we learn, it would seem, from the inscriptions on various leaves in the portfolio. But these inscriptions may have been penned not by Villard but by a professional scribe. As Lon R. Shelby and I have elsewhere pointed out, they stem from an oral tradition and read as if they were dictated to someone.11

The next step in this “decommissioning” of Villard is to propose that while he spoke Old French, he could not write it. And in this thoughtful, well-argued article, Wilhelm Schlink proposes precisely that: that not only was Villard without formal training in language, he was illiterate.

Since F. E. Schneegans’ 1901 calligraphic and philological study of the inscriptions in the portfolio, it has been known that at least three individuals added inscriptions to certain of Villard’s drawings as well as to the palimpsests in the portfolio.12

The three scripts that Schneegans identified were the following:

- **Master I (=Villard)**: Old French and Picard (fols. 1v, 5r, 6r, 6v, 7r, 8r [sic], 9r, 9v, 10v, 12r, 14v, 15v, 15r, 15v, 16r, 17v, 18v, 19v, 21v, 24r, 24v, 27r, 27v, 29r, 30r, 30v, 32r, 33r
- **Master II**: Old French (fols. 3v, 17r, 21v, 31v);
- **Master III**: French (fols. 6v, 13r, 18r, 20r, 20v, 21r, 22v, 23r) and Latin (fols. 15r, 15v, 16r, 17r).

Hahnloser adopted Schneegans’ scheme, but modified it by switching the temporal sequence of Masters II and III. Thus, Schneegans’ Master II became Hahnloser’s Master III and Schneegans’ Master III became Hahnloser’s Master II. I do not accept the thesis that any one of these writers, including Villard, was a “master.” But, Villard scholars are accustomed to Hahnloser’s designations, so these will be used here.13 As reproduced in Hahnloser, the three distinct scripts are the following:

- **Villard**: f. erwuedel uen. ben contele lagst aerre de full predel alue gasc.
- **Magister 2**: vitvl or pretibitum beate marie maeslemis
- **Magister 3**: cest un maseum cillum et chins.

The assumption has been that Masters II and III later paraphrased or summarized Villard’s commentaries, or simply added their own. Schlink rejects this sequence and argues that at different times Villard dictated to three different scribes. The earliest of the three is not the “finished text” in the beautiful scribal hand found, for example, in the so-called “Preface” on fol. 1v. His sequence is as follows: Hahnloser’s Master II; Hahnloser’s Master III; Master I (Villard).

This sequence, Schlink maintains, explains several awkward current assumptions or questions in Villardian scholarship. Why was it necessary for someone to add in Latin “Ista est fenestra ista in losana eccl(es)ia” to Villard’s clear statement “cest une recende veriere de le glize de lozane” on fol. 16r? Or, on fol. 6v, why add the redundant “cest li masons don orologe” to the full explanation of what the drawing depicted? It also explains how a Master II inscription can be in the gutter of fol. 13r: it was added before the portfolio was bound. This has long been realized, but it in this context it bolsters Schlink’s thesis.

On the other hand, Schlink’s claim that on fol. 15r the misidentification of the plan of the choir of the Cathedral of Saint-Etienne at Meaux as that of the Church of Saint-Faron at Meaux by the earliest scribe was corrected in the final scripting is open to doubt. If Villard were dictating to the first scribe, thus the earliest in time, why/how would he have misidentified the church in question?

Another oddity explained by Schlink’s sequence is the appearance of nearly identical inscriptions concerning the elevations of Reims cathedral on fol. 31v. On the right side of that folio, running vertically from bottom to top of the leaf, next to the drawing, the inscription is by Hahnloser’s Master III. On the bottom of the facing folio, fol. 32r, is the “Villard” inscription. Schlink proposes that the reason for a second, almost identical inscription on fol. 31v is that it is horizontal rather than vertical and was dictated a second time by Villard when he attempted to organize his drawings in book fashion.

**Summary**

Schlink’s thesis is that Villard first dictated some few comments to a first scribe (Hahnloser’s Master II), who may have been a cleric, since he wrote in Latin. These were “first comments” and with one exception (gutter of fol. 13r) were explanations of the subject of the drawings, mostly architectural plans or details. Even at this stage, the portfolio was taking shape: on fol. 18r this scribe wrote “chi commence le mate[re] de la portrature” and “incipit materia portaratur[a]e.” At a later time, a second scribe (Hahnloser’s Master III) added additional comments dictated by Villard. These concern iconography (fols. 3v, 17v), two recipes (fols. 21v), and the long inscription concerning the elevations of Reims (fol. 31v) considered above. Finally, when Villard had the portfolio assembled in its final form (but not yet bound), he called in a third scribe, and did the dictation that turned the portfolio into a finished product, what Villard in several places (fols. 1v, 9v, 14v) called a “book.”

In a one-sentence summary, Schlink concludes, “The texts from MS Fr. 19093 do not reflect different authors; on the contrary, they reflect different scribes who at different times put the dictates of the one and same artist, Villard de Honnecourt, on paper. Schlink’s article is a significant addition to the analysis of inscriptions in the Villard portfolio. It is cleverly argued and it makes one think. However, it is not totally convincing, at least not to this reviewer. There is no question that three scribes inscribed texts on various of the leaves. Even if they did so in the sequence Schlink proposes, his title question—War Villard de Honnecourt Analphabet?—remains unanswered and unanswerable.

**NOTES**


9. Carl F. Barnes, Jr., Villard de Honnecourt, the Artist and His Drawings, A Reference Publication in Art History, Boston, 1982: xxii.


13. To his credit, Schlink vigorously denies (p. 216) Villard a professional role in any profession: "...die entsprechen den Zeichnungen [in the portfolio] weisen den Autor weder als Baumeister noch als Ingenieur, geschweige denn als "Erfinder" aus."


15. On p. 221: "...die Texte von Ms. fr. 19093 gehen nicht auf verschiedene Verfasser zurück, sondern auf verschiedene Schreiber, die zu verschiedenen Zeiten Diktate ein und derselben Person, des Zeichners Villard de Honnecourt, zu Papier brachten."

CAROLINGIAN BUILDINGS AT AACHEN: THEIR DATING AND MEANING
Warren Sanderson (Shelburne VT)

Throughout the twentieth-century and into the twenty-first, a wide-ranging, thoroughly critical analysis of Aachen's fundamental Carolingian buildings has remained a siren-like challenge for architectural historians and archaeologists of Europe's early medieval beginnings.1 With the flow of observations that stemmed from the nineteenth- and early twentieth-century restorations and excavations of Charlemagne's royal palace chapel,2 with so many literary mentions and later pictorial descriptions of this building in contemporaneous and later texts, and with so many possible architectural inspirations or later reflections of it to be taken into account,3 there is for this single building a virtual floodcrest of information with which to work.4 In the essay that follows I will discuss a few aspects of the origins and meanings of the royal palace church at Aachen and also the royal audience hall.5 Though these buildings are very different from one another, their stories are mutually complementary.

When we turn from the twenty-first century to Carolingian perspectives on Aachen, its palace precinct (Fig. 1) loses the character of a curiously isolated grouping of some few monumental buildings and takes its place as one of the great building complexes of the early Middle Ages. Of the fourteen palace groups that Charlemagne (768/771-814) sponsored, Aachen's was of surpassing importance for his contemporaries, according to Einhard's vita Karoli Magni of the 820s and Notker Balbulus's gesta Karoli of the 880s.6 Of the Frankish king's three favorites, Aachen, Ingelheim and Nijmegen, Einhard (c.770-840) tells us it was not Aachen but rather Ingelheim that ranked first. Ingelheim and more recently Paderborn have been systematically excavated.7 Carolingian architectural remains have also been excavated at Frankfurt am Main,8 at Herstal which today is a suburb of Liège,9 at Regensburg,10 and at Worms.11 We know little with certainty of the Carolingian complexes at Samousy12 and Thionville.13 And Charlemagne's buildings at Compiègne,14 Quierzy, and Attigny are for us today mostly literary riddles from much later sources rather than architectural realizations.15

Figure 1. Aachen, palatine precinct, plan with church, gatehouse, audience hall, reused Roman villa (after L. Hugot, Die Pfalz, Karl der Grosse. Lebenswerk und Nachleben, 1965; also Kubach-Verbeek 1, 1976)

AACHEN AND INGELHEIM
The King of the Franks and Lombards celebrated Christmas of 787 and Easter of 788 at Ingelheim (Fig. 2). However, piecing together what we may from the documentary evidence, we cannot be reassured that that palace was fully ready for comfortable habitation until June of 788, when a synod convened there condemned Duke Tassilo of Bavaria. Charlemagne returned in 791, and by his 807 stay at Ingelheim, the palace was quite complete including some mural decorations. With its dates of construction paralleling Aachen's, and the same royal patronage informing both palace precincts, Ingelheim may help us make clear Aachen's initial Carolingian meaning.

Its remains are, in all, much less impressive than Aachen's. Yet, much of Ingelheim's shape has been fairly well reconstructed.16 The palace precinct (Fig. 3.) had three long, probably two-storied buildings arranged in the shape of a "U" and enclosing a courtyard 60 x 74 m. On its fourth side, the east, a great semicircular atrium, 87 m. in diameter, was delimited by a
perhaps two-storied, colonnaded pavilion. At the apex of this sigma-shaped enclosure, one passed through a twin-towered, two-storied gatehouse that led from the Mainz road into the palace precinct. Opposite, in the west wing of the palace, the royal audience hall (aula regia) was an uninterrupted rectangular space (14.5 m. x c.38 m.) that extended south and ended in a projecting semicircular apse. Remains of doorjambs in its long west wall that are wider than similar traces in the opposite long wall lead us to surmise that west of the royal audience hall there had probably been a second, larger courtyard. Most likely more of Ingelheim's palatial grounds remain to be discovered.

What we have, however, suffices to tell of a palace tradition rooted in the Roman past. First, its buildings were organized around a large rectangular central court that recalls late Antique and early Merovingian palaces such as that at Pfalzel (Fig. 4.) across the Moselle River from Trier. Second, Ingelheim's broadly curved east entrance facade and semicircular courtyard repeat apparently similar pavilions at Roman Augst, now Basel (Fig. 5.) in Switzerland, and at the third century imperial villa at Teting on the Moselle. Third, Carolingian Ingelheim's links with the distant past, particularly with Classical and Christian Rome, were, it seems, made visible in its royal audience hall frescoes. Some few fresco fragments found in excavations of 1960 and 1970 between the first and second Carolingian pavements in the Ingelheim aula regia must have belonged to the program described in detail in Ermoldus Nigellus's poem of 826-828 in praise of Charlemagne. Though evidently written for Emperor Louis the Pious (814-840), Louis was omitted entirely while Charlemagne appeared twice: portrayed in the apse once, and once subduing the Saxons (785). Since neither showed the great Frank as an emperor, Ermoldus's description dates the Ingelheim aula’s frescoes to after 785 and before Charlemagne's imperial coronation of Christmas, 800, at Rome.

The aula regia murals effectively conveyed Charlemagne's place in history. The series of historic leaders represented on its walls attested to the descent of authority from pagan and Christian Antiquity through the first Christian rulers of the Roman empire, to the Frankish dynasty, and ultimately to Charlemagne. Implicit here was the legitimization of Charlemagne's rule. Moreover, Charlemagne was coupled with Augustus, Rome's first emperor, who was the only other ruler to have been represented twice in the building's frescoes. Augustus's paired images completed the cycle of pagan figures in the audience hall, while guarding the arcuated entry into Christianity's apsidal space. Augustus's dual appearance suggests he would have been an important exemplum of effective rulership for Charlemagne, recalling the pax Augustana. At the same time, from 785 at the earliest, that exemplum may have been a factor in Charlemagne's early thinking that prepared him to become the first Carolingian emperor.

Ingelheim's architecture and its audience hall mural apparently expressed the more-than-nascent ambitions of a Christian Frankish ruler to reinstate Rome's heritage as established by her first emperor, Augustus. It may also have reflected the Frank's efforts to subsume within his own Christian rulership the traditions of Augustus as well as Constantine. Since Aachen and Ingelheim were erected contemporaneously, Aachen's palace complex would most likely have been imbued with notions of rulership similar to those found at Ingelheim.

Figure 2. Palace at Ingelheim, 787-807, plan (after U. Wengenrath-Weimann, 1973)

Figure 3. Palace at Ingelheim, graphic reconstruction from the south (after U. Wengenrath-Weimann 1973)

Figure 4. Palace at Pfalzel near Trier, plan (after E. Wightman, Roman Trier and the Treveri, 1970,168 fig. 20)
THE PALACE PRECINCT AT AACHEN

Charlemagne arrived at Aachen for the first time in twenty years in the winter of 788-789, and did not return for five years, that is, not until 794. An abrupt increase in his stays at Aachen from autumn 794, into the autumn of 806, leads us to assume that king, courtiers, and their accompanying retinues first occupied the new palace precinct during the autumn of 794. Although the construction that made this possible could have been initiated during the king's visit in the winter of 788, the spring of 789 seems a much more practical time to have begun building. In either case, the construction of Aachen's palace complex (Figs. 1, 6-8) was surely well along when the king and his court arrived in the autumn of 794.

But how long did this work continue? Einhard, Charlemagne's biographer and his overseer of works at Aachen from before 791, wrote in his vita Karoll that the King of the Franks and Lombards took a personal interest in the ongoing building of the palace complex. This use of the title King of the Franks and Lombards for Charlemagne sets a time limit on the construction, as we have seen, since after Christmas day 800, the Frankish ruler was addressed as emperor rather than king. The documentary data, then, provides us with a likely sequence for the king's building campaign at Aachen's palace church. Whatever initial planning was necessary was probably concluded during the winter of 788-789 so that its construction would have begun in the spring of 789. The palace church neared completion by 794, and further documentary data that we shall discuss below shows that its structure was probably fully finished by late 796. There is archaeological and textual evidence that the other newly erected, major Carolingian stone building at Aachen, the aula regia, was begun by 798-799 and continued to no later than ca. 800-802, We will consider the palace church first, and then the royal audience hall.

THE PALACE CHURCH

Are there clues to the palace chapel's time of construction in its very real physical presence before our eyes? This first great, fully vaulted, monumental building of the early Middle Ages is a remarkably large structure. Its sixteen-sided exterior (Fig. 6), rises two-stories to a central, set back, octagonal drum that is capped within by an eight-sided cloister vault. On the west, a massive, towering rectangular forebuilding (Fig. 7), flanked by round stairway towers, communicates directly with the church's continuous gallery and its ambulatory (Figs. 8a,8b). On the east, a two-storied rectangular apse originally projected, vaulted within

Figure 5. Augst, now Basel, Imperial Roman palace (after K.M. Swoboda, Römische und romanische Paläste, 1919)

Figure 6. Aachen, Palace church, exterior view (W. Sanderson)

Figure 7. Aachen, west tower, reconstruction with atrium and two of four large lateral exedrae (after F. Kreusch, Kirche, Atrium und Portikus, Karl der Grosse III, Kunst, 1965)
at both levels. Between the monumental tower entry and the apse, the palace church’s octagonal interior (Fig. 9) was articulated in a high, spacious superstructure of eight bays with steeply angled (Fig. 10) tunnel vaults surmounting a sturdy, stockily proportioned groin vaulted base level. The central core of space between the ambulatory’s west entry bay and the east chancel bay is bordered on either side by (Fig. 8a) three square lateral bays, each of which is screened and provided with an altar, where the canons of this church of the Virgin and members of the royal chancery celebrated Mass. At their altars in the ambulatory they would have been set apart from the building’s octagonal core by low screens across their broadly proportioned, groin vaulted bays that supported the two-storied gallery colonnades. Despite its being a treasure house of archaeological data, this palace church conceals all too well its original dates of construction.

A lost inscription, copied in the margin of a late ninth-century manuscript in Vienna, names a certain “Odo,” buried at Metz, as the palace chapel’s master, or overseer of works.26 It fails to inform us, however, of his responsibilities at Aachen. Study of the palace chapel’s foundations is inconclusive and even mystifying for its extraordinarily high quality ashlar masonry was without parallel among Frankish buildings. We may thus posit that the workers responsible for building that foundation and, we assume, their master of works would have come to Aachen from far beyond the limits of the Franks’ royal realms, as at least one late-ninth century text has it.27 Finally, dendrochronological evidence of fragments from beneath the palace chapel’s
crowning octagonal cloister vault suggests a date after 776 (+/-10). However, the wood samples in that investigation were too poor to permit further scientific verification.

Since archaeology does not take us very far, we had best return to written documents not yet considered. Most have shortcomings. For instance, Pope Hadrian I's well known response (between 781 and 791) to Charlemagne's request, released to the Frankish king mosaics and marble from Ravenna's palace. Often cited as evidence for the date of the royal chapel at Aachen, this document never mentioned specific destinations for these materials, and could have referred to any of the five or six royal palaces then under construction, including Ingelheim. A letter of 22 July 798 from Alcuin to Charlemagne seems more helpful for it refers to the palace chapel's columns being in place. However, it does not clarify whether these columns had been installed relatively recently or at some much earlier moment. From these two typically promising, but uncertain documents, we lack direct documentary evidence of the palace chapel's dates of construction.

Another lost notice, this dated in the Annals of Lorsch to the autumn of 796, and copied into the Chronicles of Moissac after 816, clearly suggests that the columns Alcuin described were installed by the time of the original notice. In that document Aachen's church of wondrous size, its cast doors and screens were summarized as completed. If even the excellent cast doors in imitation of Antique or Byzantine bronze models and the extraordinarily fine screens of the ambulatory and the gallery were finished, we may be quite certain that the entire church structure, and probably its decoration as well, were also completed by 796. Very likely the description of 796 copied into the Moissac Chronicles was originally authored by Richbod, a student and friend of Alcuin, trusted advisor to Charlemagne, member of his peripatetic court from 782, abbot of the Benedictine monastery at Lorsch, Archbishop of Trier, and, until his death in 804, the main author of the highly reliable Lorsch Annals. The notice of 796 — evidently two years after the king's court had converged upon Aachen from diverse locations — seems about as close as we may ever get to certifying the palace church's date of completion. Other documents suggest later dates, but none is viable — that is, none is as consistent with the evidence that we have presented and that will be offered below. Very likely then, the year 796 marks the time during which the palace chapel's functioning form was completed.

From this excursion into the problems of dating, we find that the fundamental extant monument of the Carolingian age was very likely erected during the eight years from the spring of 789 to the autumn of 796. In determining this, it is noteworthy that the historical texts outweigh in importance the archaeological data of this palace church.

Looking more carefully to the year 787, when the King of the Franks and Lombards visited Ravenna, Charlemagne must surely have known and directly experienced the beautiful church of San Vitale. Two years later, in the spring of 789, when Charlemagne's builders broke ground at Aachen, they could then translate San Vitale's fluently graceful, sixth-century Byzantine curvatures into a building that a Frank would have appreciated: one with flat rising and arching surfaces, stereometric spaces (Fig. 9), and much more massive proportions (Figs. 6,10). Along their routes in Italy, Charlemagne's traveling party also would have seen, among others, central-plan churches such as the Lombards' palace church of Santa Sophia at Beneventum. (760/768-787) that deliberately referred in name and perhaps in form to its Byzantine court church predecessor, Hagia Sophia at Constantinople. But none was closer in spatial form to the superstructure of Charlemagne's palace church than Justinian's San Vitale.

Moreover, like San Vitale, Charlemagne's court church at Aachen was apparently in the mainstream of a particular domed centralized church type with galleries found throughout the Mediterranean world from Antioch in Asia Minor to Milan in northern Italy from the fourth century on. In addition to San Vitale, Aachen's palace church is also related, I believe, to court church types such as those at Beneventum, Thessalonika and Constantinople. Ultimately it may stem from the tradition established by Constantine's great golden-domed octagonal church at Antioch.

The historical context of Aachen's new palace chapel and its architectural character corroborate the hypothesis we posed of Aachen's iconographic kinship with Ingelheim. With the completion of his palace chapel in 796, Charlemagne conveyed architecturally the message that Ingelheim's palace presented: that of himself as the legitimate successor to the authority of Christian Roman rulership in the West. Before the end of the century, as if to acknowledge this claim, the Patriarch of Jerusalem sent an emissary to Charlemagne with relics from the church of the Holy Sepulchre for the altars of the great new palace church.

Figure 11. Aachen, Audience Hall, 798-801/2, reconstructions of a) south elevation, b) ground plan (Binding, Königspfalzen, 1996)

Figure 12. Rome, Triclinium of Pope Leo III in the Lateran Palace, 796-798, ground plan (after N. Alcmanni, De lateranensibus parietinis, Rome 1625)
The construction site of Italian masons as leading masters possibly continued to be employed by the builders of the lower story of the pavilion;

2) in its two-storied northward continuation; and

3) throughout the build-

the Roman foot measure of 29.56 cm. that was used: 1) throughout

Carolingian foot measure (33.33 cm.) used in the palace chapel

famed Constantinian model at Trier in two ways. First, it included

the north-south spine that linked the aula regia and the palace chapel.

Not only the dendrochronological data but also the support-

ing historical situation document construction that culminated in Aachen’s audience hall and link this building to Charlemagne’s meeting with Pope Leo III (795-816) at Paderborn in April 799.45 After that conference, Aachen’s masons added a second story to the north-south pavilion, and then erected a monumental two-storied gatehouse (c. 29 x 15 m.). From there, they extended the two-storied pavilion northward to join with the aula regia then still under construction.

Significantly, for this part of the campaign at Aachen’s palace precinct, two points have gone unnoticed. First, there was an abrupt change in the unit of measure employed. The same Carolingian foot measure (33.33 cm.) used in the palace chapel continued to be employed by the builders of the lower story of the first segment of the north-south pavilion. However, it was the Roman foot measure of 29.56 cm. that was used: 1) throughout the construction of the second story of that pavilion; 2) in its two-storied northward continuation; and 3) throughout the building of the aula regia. So fundamental a change in working units of measure is best explained by the sudden presence at the construction site of Italian masons as leading masters possibly accompanied by their team of workmen. This almost certainly would have happened after Charlemagne and Pope Leo III met, that is, no earlier than in April 799.

Second, the design of Charlemagne’s hall diverged from its primary Constantinian model with the single monumental apse at Trier to clearly incorporate two less grand lateral apses. This too may be attributed to his talks with Leo III at Paderborn and the ensuing presence of Italian workmen at Aachen. Indeed, only a year or two prior to the Paderborn conference, Leo III’s triclinium (796-798) at the Lateran in Rome (Fig. 12) had been completed.46 Leo’s papal audience hall had one large apse at one of its short ends and two lateral apses in the midst of its long sides giving it the form of a triclinium, as did Aachen’s aula regia soon after. Indeed, the two halls are so near in design and in time sequence that we may suggest the Italian masons and workmen engaged at Aachen from late April 799 were among those who had recently finished building Leo III’s triclinium at the Lateran.

The historical context of the pope’s meeting with the Franks’ ruler at Paderborn also helps inform us of a more precise sequence of construction at Aachen. We have seen that the palace church structure, begun in all likelihood in the spring of 789, was almost certainly completed in 796. Its west atrium was in place by 798. And in that same year construction began on the enclosed one-story pavilion that would lead north to the gatehouse and beyond that to the royal audience hall. The single story pavilion design must date to between 798 and April of 799 since that construction is in Carolingian feet. The remainder of the pavilion and its second story as well as all of the aula regia, all being in Roman feet, must have been undertaken after April 799.47

Before the turn of the century, Charlemagne’s engagement with Constantinian and contemporary Rome was reflected in his palace audience hall. By synthesizing at Aachen the spatial arrangements of the audience halls at Constantinian Trier and Leo III’s Rome, Charlemagne’s architects fused symbolically the secular Early Christian past and the spiritual Roman present. In this way they created a new unity of time and geography in a Christian revival of the authority of “Rome” led by Charlemagne. The “New Constantine” reigned at an Aachen that surpassed Ingelheim even as both palace precincts expressed their links with Rome. And of Charlemagne’s fourteen palace complexes, it was Aachen, with its distinguished, monumental palace chapel and huge audience hall, both in late Antique architectural traditions, that became the Nova Roma of the North.

NOTES

1. This essay is based on my paper, Carolingian Aachen: Form, Iconography, and Datingread in the Open Session on Medieval Architectural History, chaired by Carolyn Marino Malone (Univ. of Southern California), at the 1998 annual meeting of the Society of Architectural Historians held in Houston, Texas. I am grateful to Professor Malone for her invitation to comment there upon some of the problems concerning Carolingian Aachen. A shorter version of my original paper appeared in the 1999-2000 on the AVISTA web page (www.AVISTA.org).


3. See, for example, Albert Verbeck, Zentralbauten in der Nachfolge der Aachener Pfalzkapelle, Das erste Jahrtausend. Kultur und Kunst im Werdenden Abendland am Rhein und

5. The earliest documented Carolingian use of the term royal chapel or *capella regia* stems from 775 and concerns the palace at Düren. By 788 Aachen’s important role was obvious, though its palace church was in its earliest phase, with construction probably not to be commenced for many months, and very far from completion.


12. Samoussy is mentioned but briefly in Kunstchronik, 37, 1984: 164.


15. Not all of the complexes I have cited are known archaeologically. There is ample literary evidence for their existence, but whether Charlemagne or King Charles the Bald and their respective courts spent much of their winters at any of them will rest ultimately upon archaeological analyses of each site. Compare the approaches of Josef Fleckenstein, Karl der Grosse und sein Hof, *Karl der Große 1: Persönlichkeit und Geschichte*, H. Beumann ed., Düsseldorf, 1965: 24-50, with those of Matthias Untermann, *Der Zentralbau im Mittelalter. Form-Funktion-Verbrendung*, Darmstadt, 1989: esp. 113-115 on Compiègne and 126 on Thionville.

16. See note 7 above for the excavations and reconstructions of Ingelheim.

17. A useful, well-illustrated tracing of palace architectural traditions may be found in Irving Lavin, *The House of the Lord. Aspects of the Role of Palace Tracenia in the Architecture of Late Antiquity and the Early Middle Ages*, Art Bulletin, 44, 1962, in which pp. 1-15 concern the triconch and the sigma, and 15-24 discuss the central plan in palaces and churches. See also Karl Maria Swoboda, Römisch und Romanische Paläste, Vienna, 1919.

dem Palatin zum jeweiligen Aufenthaltsort des römischen Kaisers, in the same volume.

19. Illustrated by Lavin (as in n. 17).


21. According to both Lammers and Hauck (as n. 20), three pagan rulers were shown on each of the long walls of the rectangular hall, while Rome’s first emperor, Augustus, was pictured left and right of the entry into the apse’s space. The large aula’s pagan rulers contrasted with the five Christian rulers painted in the semi-circular apse: Charles Martel, the founding father of the Carolingian house, commanded the center of the apse wall; Theodotius and Pippin the Short flanked him, while beyond them at opposite ends of the apse were Constantine and Charlemagne.

22. Hauck, Karl als neuer Konstantin (as in n. 7): 513-539, ills. I-LII.

23. Kaemmerer, Quellentexte, (as in n. 4), III.

24. The building is discussed in some detail, taking into account critically many pertinent texts, and the likeliest of its sources in Untermann’s Der Zentralbau (as in n. 15): 86 ff.

25. Although the west building is impressively large, it lacks the defining elements of a westwork—a low, vaulted, entry-level crypt supporting a west choir that is framed by galleries on three sides, and a transeptal space on the east, the fourth side. I refer to it, therefore, as a west building but not a westwork.

26. Known for quite some time, but with differences in the translation of key words unresolved, the inscription came to us as a marginal gloss to chapter 31 in a late ninth-century copy of Einhard’s Life of Charlemagne, now in Vienna’s Austrian National Library. I refer to Vienna Manuscript, Vindibonensis 969 (=Theol. 354), f.55v.

27. This deduction, made from observing the character of the actual workmanship at Aachen, echoes surprisingly closely the narrative of the Saint Gall monk, Notker Balbutus, concerning Charlemagne: Ad cuius fabricam de omnibus cismarinis regionibus magistros et opifices omnium id genus artium advocavit. Super quos unum abbatem cunctorum peritissimum. ad executionem operis... consti-tatur. (He called together to this building from all lands on this side of the sea the masters and workers of all arts of this type, Over these he set as building leader an abbot who was more experienced than all of the others.) Cf. G. Meyer von Knobau, ed., Notker, (as in n. 6): 36, 4.

28. Ernst Hollstein, Mitteleuropäische Eichenchronologie: Trierer dendrochronologische Forschungen zur Archäologie und Kunstgeschichte, (Trierer Grabungen und Forschungen, Bd.


30. Alcuin, ep. 149, MGH, Epp. 4: 244.

31. MGH SS, 1: 303; Kaemmerer, Quellentexte (as in n. 4).


33. Attesting to the quite certain completion of the gallery level, two of the three cast bronze doors of the Aachen chapel were set into the gallery level to provide a closure between it and the north and south basilican annexes. It seems a very short path from this to supposing the finish of the entire building for more reasons than we may indicate here.


35. Though it seems likely that the mosaic decoration of the interior was also completed during 796, that question deserves some further consideration unto itself.


38. I refer specifically to Santa Sophia at Beneventum (as in n. 37), the Theodosian updating and consecration of Galerius’ tomb at Thessalonika c.390-400, and Justinian’s Hagia Sophia in Constantinople. For more information on each, including bibliography, see the appropriate sections in Richard Krautheimer, Early Christian and Byzantine Architecture, New Haven, 1975, and later editions.

39. Krautheimer, Early Christian, (as in n. 38). For the many traditions in which the Aachen palace church may be viewed and their gradual elimination as forerunners, see especially the wide-ranging and instructive discussions of Günter Bandmann, Die Vorbilder der Aachener Pfalzkapelle, Karl der Grosse, (as in n.2): 424-462.

40. MGH: 1, col. 186 and ff.
41. Hollstein, Mitteleuropäische Eichenchronologie, (as in n. 28).

42 Still fundamental for the Aachen *aula regia* is the archaeological study of Leo Hugot, *Die Pfalz Karls des Grossen in Aachen, Karl der Große*, (as in n.2): 534-572, esp. 546-556. The bibliography to 1976 for this monument is summarized best in the first volume of the Kubach-Verbeek catalog (as in n. 2).


44. For a brief view of the two buildings' proportional dimensions in Roman feet, with three other buildings as well, see W. Sanderson, *The Sources and Significance of the Ottonian Church of St. Panteleon at Cologne, Journal of the Society of Architectural Historians,* 29, 1970: 83-96, esp. 93, n.67.


47. A closer consideration of the archaeology has shown that the Italians at Aachen were able to work with their Roman foot-measure while erecting the second story of the north pavilion over a first story accomplished in Carolingian feet. The question remains whether the *aula regia* 's rising walls were in Roman feet, like its foundations, or were, instead, in Carolingian feet. The foot-measure, after all, signals the practices, and hence the likely origins, of the builders. I am most grateful to Prof Dr. Gunther Binding for making his Institute of Architectural History's library, which included a great deal of data concerning the Aachen palace precinct, available to me when he and I team-taught a doctoral seminar on Carolingian architecture during my visiting professorship at the University of Cologne in the Fall semester of 1989-1990.

WOOD, CASKS, AND BALTIC TRADE. ANALYTICAL PROSPECTS OF A SIXTEENTH-CENTURY SHIPWRECK ASSEMBLAGE.

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PREFACE

In the summer of 1984, an early modern shipwreck was discovered in the Wadden Sea in the northern Netherlands. In this article, I investigate the use of wood both for the ship and its cargo. In particular, I present a set of wooden casks as a new fascinating source of historical and archaeological knowledge that provides information on coopering techniques, trade routes, and offers a possible future means for dating ships.¹

THE SHIP SCHEURRK S1

The Netherlands Institute for Ship and Underwater Archaeology (NISA) surveyed the wreck called *Scheurrak S1*, for the first time in August 1986.² Excavation started in 1989 and ended in 1997. The wreck itself still lies at the bottom of the Wadden Sea, but plans are being developed to raise it within a few years.

Built around 1580, the ship probably sank in the early nineties of the sixteenth century.³ Its main cargo was wheat from the Baltic area. The wreck is lying with its starboard side on an old sandbank. There are no traces of fire or war violence. Part of the port side, however, shows axe marks indicating that this part has been cut open to provide an entrance in the ship, likely during operations to salvage goods soon after the wreck of the ship. All these data suggest that the ship might have perished during a storm. From historical research we know that there were only two stormy periods in the early 1590s.⁴ The best option seems to be the storm that raged on Christmas Eve 1593. During this storm about forty ships sank, most of them with a cargo of Baltic grain.⁵

It is often difficult to give a type name to a wreck and this case is no exception. Research reveals that the wreck bears many similarities to a *flute* including the round stem of the ship and the tapering boards.⁶ Because of the early dating and the fact that the wreck has not yet been salvaged, its construction, therefore, has only been partially examined and we must be content to call it a “flute-like vessel.”⁷

A CARGO OF GRAIN

The most important reason to excavate the wreck was the lack of archaeological and historical information about shipbuilding methods in the Netherlands at the end of the sixteenth century. In the beginning, the research focused on the construction of the ship. Gradually, interest turned to the objects found in the wreck as well. Wrecks sink into the soft soil of the Wadden Sea and objects on the bottom of the sea are encapsulated rapidly in the abundant sedimentation of silt and clay. Artifacts are preserved from rotting because of the lack of oxygen. A complete inventory of textiles, ropes and other organic materials has been well preserved for 400 years. About 5000 finds where excavated, conserved and accurately documented. The research on these finds is still in progress.

Right from the start of the excavation it was clear that the *Scheurrak S1* -ship had been loaded with wheat. Large quantities were kept behind the decks of the starboard that had turned over. The hold of the ship had been freed from its wheat a long time ago by the currents. There, in situ, roughly cut poles where found, possibly used for carrying a floor of planks. These planks were found all over the wreck. Originally, a layer of bundled straw was put on top of this plank floor followed by the wheat bulked on top. From sixteenth century sources we know that grain was shipped as a bulk cargo. Despite the risk of mingling different grain cargoes, this proved to be the best method of shipping. During the excavation, woven mats were also found. Sixteenth-century accounts state that this kind of mat was placed in between...
the straw and the grain. Mats were also used to separate different loads of grain. In this way, grains of different qualities from different merchants could be shipped at the same time. The mats found in the Scheurrak SO1 -wreck may have been used for the same purpose.

The several seeds of weed, found in between the wheat monsters taken from the wreck, were used to trace the place of origin of the grain load. By combining maps of the sixteenth-century range of distribution of all these weeds, it became clear that Poland was the origin of the wheat cargo. From an historical point of view this is not surprising. The wheat cargo of the Scheurrak SO1 -wreck probably originated from the Vistula or Weichsel trade: grain from the interior of Poland was transported on the Vistula river to Danzig (Gdansk). Most of the grain shipped to Amsterdam came from this area. This grain trade was so important to the Dutch economy of the sixteenth and seventeenth century that it was called the "mother trade."9

Cargo in Casks

Between the first and second deck of the starboard, some 400 hundreds staves and 80 head parts of casks were found. Most of them have been investigated and, although one-fifth remain to be done, some conclusions can be drawn.10 We now know the casks were filled with different kinds of goods. Between the parts of some casks, bones of three different kinds of cod were found. These fish were prepared in such a way that it can be stated that these bungs come from southern Europe? In the coming years, more wood samples must be taken and investigated to more fully reveal the use of wood in sixteenth-century coopering, the craft of making casks.

CARGO IN CASKS

Between the first and second deck of the starboard, some 400 hundreds staves and 80 head parts of casks were found. Most of them have been investigated and, although one-fifth remain to be done, some conclusions can be drawn.10 We now know the casks were filled with different kinds of goods. Between the parts of some casks, bones of three different kinds of cod were found. These fish were prepared in such a way that it can be stated that the casks contained stockfish11(Fig. 1). Also, casks with shanks of beef, brooms of heather, gunpowder and broad beans were loaded on board.12 Fish, beef, and beans could be victuals; the brooms were probably part of the cargo. The shape and finish of some staves, as well as the presence of bungholes, plugs and faucets, suggest the presence of casks containing liquids. The reconstructed casks vary between 50 and 80 cm in croze length, that is, the length between the two heads. The largest group has a length of 67 cm. between the crozes. The smallest head has a diameter of 31 cm; the largest measures 55 cm. The calculated contents vary between 60 and 180 liters. One cask possibly had a volume of 222 liters. In the near future, the contents, volume and measurements of the SO1 -casks will be compared to each other. In this way a comparison can be made with the sizes of casks known from historical records.

Figure 2. Willow hoops (Salix sp.), cut according to the "fish mouth" method (vissenbekje). The two ends of the hoop hook into each other (photo: NISA)

Dendrochronology

One way to determine the place of origin of the cask wood is through dendrochronology, a science that uses the differences in yearly growing patterns and from different trees to establish chronology.18 Trees of the same sort, in the same area and of the same time have the same growing pattern that can be used to construct chronologies of tree rings. In turn, these chronologies allow us to fix absolute dates.

At least sixty annual rings are needed to date oak wood. The thin cask staves contain little wood, but the way they are cut
out of the tree (quartered) makes it possible to find many staves with sufficient annual rings. For the research of bigger sets of wood, it is even possible to date with less than sixty rings. This is especially useful in finding the age of casks, the differences in the origin of the wood used, and the evidence of repair or reuse of the casks. So far only seven oak cask staves from the wreck have been analyzed with dendrochronology, but more extensive dendrochronology research on the SO1-casks will soon be undertaken.

Two staves could not be dated. On the other hand, the five dated staves yield encouraging results. The wood of two staves is dated after 1554 C.E., two around 1596 (+9 -6) and one was dated around 1584 (+9-6). The oak used for these staves originated from Poland. The wood of the ship has also been dated by dendrochronology and indicates that the ship was been built around 1580 from Westphalian oak wood.

![Figure 3. Two different ways of finishing a stave. The left stave, belonging to a broom cask, is thin and roughly finished on the outside as well as on the inside. The right stave belongs to a fish cask. The inside of this stave is not as rough as the left stave (photo: NISA)](image)

**Quality of the Casks**

There is a clear contrast in quality between the various casks of the Scheurrak SO1-wreck. Some staves contain faults like gnarls, a curved grain or sapwood. Casks made out of staves with sapwood are difficult to make watertight because the wood is soft and therefore easily compressible. This also leads to damage and rotting. Cask staves with gnarls break more easily and those with a curved grain are more difficult to process and are difficult to keep in the formed shape.

Why are these casks made out of inferior wood? We have already seen that the oak wood of the casks originated from Poland. Perhaps the best balance between price, quality and function was the deciding factor. From the end of the fourteenth century, Danzig (Gdansk) imposed quality control on woods. When entering the city, wood was checked on the so-called houtbraak and divided into three classes: goed, brak and brak-brak.

Although the criteria of the three wood classes are unknown, the majority of oak wood used for the casks of the Scheurrak SO1-wreck probably belonged to one of the two inferior classes, brak or even brak-brak.

Why was this wood chosen? First there is a significant price difference. In Danzig in 1488, one hundred pieces of small clap holt cost seven and a half Prussian marks, while the same amount of small brak clap holt sold for half the price or only three and three-quarters Prussian marks. Secondly, wood could be selected according to its function. To prevent it from leaking, a cask meant for storing liquids had to be constructed out of qualitatively good (oak) wood. Casks used for the transport of brooms were constructed to prevent the contents from being squeezed. For this purpose a lower quality of (oak) wood would suffice. There is also another notable difference between broom and liquid casks. The lower quality broom casks were roughly finished while those used for liquids reveal a higher quality finish in which the staves were well sealed in order to make the cask watertight (Fig. 3).

**Origin of the Casks and the Trade in Wood**

The oak wood used for the casks, as we have seen, originated in Poland, but were the casks also manufactured there? Oak wood was already scarce in the sixteenth-century Netherlands and large amounts were imported from other places to meet a variety of needs. Wood as a building material for houses and ships came from the Rhine and Westphalia and was transported downstream on the river Rhine to the Netherlands. Wood was also imported from Poland. Simple rafts, like Plenicas or floating boxes like Kokoszka's and Komiega's, loaded with grain, floated down the Vistula to the port of Danzig. Not only the grain, but also the wood of the primitive boats was sold on the market.

As Witsen already stated in 1671, oak from the Baltic area was usually traded as sawn or split boards. The tall boards were called wainscot; the smaller boards clap holt or clapboard. I do not know the exact sizes of the boards, however, finds recovered from another shipwreck, the W-5 wreck (the copper ship) may furnish more information. This wreck of a late fourteenth-century ship that sank in the first quarter of the fifteenth century, was discovered in the Gulf of Danzig in 1969. Besides copper and iron ingots, it was also loaded with long oak boards with a maximum length of two and a half meters and a cargo of smaller boards between 79 and 85 cm in length. The tall boards from the W-5 wreck can be identified as wainscots; the smaller boards a cargo of clap holt.

The sizes of the staves from the Scheurrak SO1-wreck match those of the W-5 clap holt boards. Records such as the Sound-Toll-Registers show that clap holt boards were exported in huge quantities from Poland into the Netherlands and there is a distinct possibility that the casks, using imported Polish wood, were made elsewhere.

In an ordinance from the cooper's guild of Alkmaar of 1653, we read that clap holt was a kind of wood that belonged to the trade of cooper: Wijders sal niemandt van den ambachte eenigh houdt dat tot ten ambachte behoort binnen Alkmaar mogen verkoopen/ het zy hoep-hout/ bandt-hout/ clap holt/ ofte wat hout het ambachte verbesicht ende van buiten inne komt/.. 31 From English historical sources we know as well of the scarcity of oak wood. Laws were made in 1543 and 1585 stating that no cask the size of a barrel was to be exported unless the same amount of wood was brought into the country to compensate for the loss of wood.

Still the question of whether the casks of this wreck were made in Poland or somewhere else has not been solved. Perhaps we will be able to find the answer if we focus our research on the different kinds of marks found on the casks.

**Marked Casks**

The marks on the casks of the Scheurrak SO1-wreck can be divided into three groups by outer appearance, namely: scratch, cutting and brand marks (Fig. 4). Scratch marks are usually thin
Figure 4. From left to right: a cask head with a scratch mark; a cask head with different cutting marks; and a cask stave with a brand mark (photo: NISA)

and shallow. They can be made with a knife. Cutting marks are made with a special kind of tool called a burin and are wider than scratch marks. Some scratch marks can be related to the cooper, serving as guidelines in the construction of the cask. Other scratch marks, as well as the cutting marks, clearly have another function. They may be the ownership marks of a merchant, a skipper, or a new owner. Merchants marked their possessions and freight. When goods got lost or disappeared during the cask-making process. The head part of a cask found in the watership wreck OT23 (Flevopolders, Netherlands) was marked with the Amsterdam coat of arms and the year 1651.33

Marks on casks can also indicate a number (for example, amount) or kind of cargo.34 Wood was also marked after purchase, but these marks usually disappeared during the cask-making process.35 The marks on the cask parts from the Scheurrak SO1-wreck were all made during or after fabrication. The roughly made broom cask staves were the only staves that could have had those marks, however none were found. Although there has been increased interest in marks on wood in the last couple of years, studies have been restricted to the collection and registration of the variations. A logical next step in the research of the origin of the casks from the Scheurrak SO1-wreck would be an extended study in the archives of Amsterdam and Gdansk (Danzig) which would compare the known marks of merchants, skippers, and cooperers with those on the casks.

One group of marks could be even more effective in tracing the origin of the casks. Every cask made by a cooper of the guild had to be brought in for inspection. After approval, the casks were branded with the mark of the brander, the year, or the city’s mark. Old or repaired casks, as well as those that came from outside the city, had to be brought in for inspection.36 This means, at least theoretically, that each cask had to be inspected and branded every year. Identifying a brand mark from one of the casks of the Scheurrak SO1-wreck will date it within one year and the city where it was inspected will also be known.

THE LAST VOYAGE

We know the Scheurrak SO1-ship sank in the nineties of the sixteenth century. It was a Dutch ship with a Dutch crew. Wheat and wood for the casks came from Poland. Other finds, including a trumpet from Genoa, an earthenware pot from the Iberian Peninsula, the bungs made out of corks, and weights for French and Portuguese coins, relate to the Mediterranean area. On its last voyage, the ship may have come from Danzig, with its cargo of wheat. It could have been anchored on the roadstead of Texel to be unloaded for the staple market Amsterdam. It may also have been waiting for the right wind to sail to another port. Its final destination might have been the Mediterranean where it would have sold its wheat for the highest possible price.37 A third option might envision that the ship was loaded with Baltic grain from the Amsterdam staple market, where large quantities of grain were stored in warehouses, to be sold somewhere else. Continuing research on the wood and the marks found on the casks from the Scheurrak SO1-wreck may provide the answers to questions surrounding the last voyage of this ship.

CONCLUSION

Casks found in archaeological excavations yield a wealth of information. First, they give us a clear view of technology and craftsmanship, the use of wood and the way of trading certain goods in the past. With dendrochronology, investigation of the casks pinpoints where the wood came from and when it was cut. Especially in those cases made roughly and, therefore, probably used for a short time and in those that contain sapwood, an accurate dating of the site is possible. This project provides valuable indications about the origin of the cargo as well. In the future, however, even more precise dating and research on trading routes can be achieved through comparison of the marks found on the casks. Brand marks, for example, may date of wreckage within one or two years. An extended databank for marks is needed before this method will be as easy to use and as informative as dendrochronology. In the years ahead, more research must be done by archaeologists and historians to exploit fully the record of material and economic activity contained in these underwater sites.

NOTES

1. This paper was first presented at the symposium Beyond local natural ecosystems. Long-distance trading in fish and wood in the Netherlands 1300-1700, 8 April 1999, organized at the Free University, Amsterdam by Petra J.E.M. van Dam.

2. The wreck is called after the site where it has been found. SO means Scheurrak Omdraai, an area situated in the Wadden Sea.

3. The best indication for the date of wreckage is a wooden lintock. The date 1590 is carved on its handle.

4. Those two stormy periods were the winter and autumn of 1592/1593 and winter and autumn of 1593/1594. See Van Tielhof, 1997.

5. ibid.

6. With a keel length of 26 meters, the ship itself was probably over 30 meters long. It was a shell-first flush built vessel, constructed with a double layer of shell planking. This resulted in an almost self-supporting shell 14 cm thick. This solution is probably typical for the development in Dutch shipbuilding on the threshold of the “Golden Age”. See also Maarleveld 1994. According to some historical sources, Pieter Jansz Liorne designed the flute in 1595. However probably the flute evolved over time like most other ships. On shipbuilding and shipping in general, see Unger, 1987; and DeVries and Van der Woude, 1997: 296-300, 355-357.

8. Archive Daniel van der Meulen, NR. 153.


11. The three different kinds of cod are Gadus morhua, Brosme brosme, and Molva molva/Molva dypterygia. The last two kinds were probably caught in the northern part of the North Sea, or even more northerly waters. Consult Brinkhuizen, 1994.

12. Broad beans of the type that is still consumed in the Netherlands, the Vicia faba variety major has rarely been found in archaeological excavations. These beans are among the oldest examples ever found in an archaeological context. Information on broad beans came from oral communication with W. Kuijper (University of Leiden). See Zeiler, 1994 about the shanks of beef.

13. There are a few exceptions. Wood of Quercus suber and Quercus ilex can be distinguished from other kind of oak woods. Refer to Burgers, 1977: 254.

14. Oak wood from Poland and mid-European Russia often grows regularly on a tall straight stem as in Boerhave Beekman, part 3: 91 and 137.

15. Black granular material was found on a few parts of the beech wood casks.


17. The willow hoops were connected according to the vissebekjesmethode or fishmouth method as explained by Manders, 1996: 44-46.

18. Between 1909 and 1919, the astronomer A.E. Douglass formulated the principles and techniques of dendrochronology as a tool to study climate and, by crossdating, built the first extended chronologies of tree rings. See also Jansma, 1995; Koningsberger: 259-271.

19. Cask staves are usually found in larger numbers. If it is known which chronology is to be used to date the staves, then it is even possible to use a stave with fewer rings. Oral communication from E. Hamaets, RING, Amersfoort (The Netherlands).

20. The cutting dates of the last three staves are precise due to the presence of sapwood. This means the last ring of heartwood is present as well. The calculation for the estimated amount of missing sapwood rings is based on an average of 15 (plus 9, minus 6) for Polish oak. When there is no sapwood present, the number of missing heartwood rings remains unknown. Consequently, the cutting date can only be estimated roughly, as we can see for the first two dated staves. Information from RING.

21. This will be executed by RING. Hopefully, the beech staves can be dated through dendrochronology as well.

22. At least one-fourth of the staves contains sapwood. It is also present in a considerable number of headpieces. The appearance of sapwood makes it possible to date more precisely with dendrochronology.

23. Possibly this city control was there at an earlier date. Consult Posthumus, 1953: 153.

24. These Dutch words are difficult to translate. Goed means good and brak (sometimes wrak) means unsound. The city control on quality was called vrake or brake. The place where the quality of the wood was therefore called the houtbraak. Posthumus, 1953: 153.


27. “Koninxbergen geeft ons de betste planken zoo green als eiken.” Witsen, 1671.


29. Wainscot was also used to make casks according to Posthumus, 1953.

30. Christensen, 1941.

31. Geest, 1653, article 19


33. Cities and companies marked their possessions as well for which see Kolman, 1993: 7. Casks used by the VOC had their mark as in Marsden, 1985: 123. Another head part with the Amsterdam coat of arms was found in the Flevopolders wreck.

34. Ross, 1980: 162, suggests that a few casks of the San Juan wreck (Red Bay, Canada) bore Roman numbers. The reason for this is not clear to him.


36. “De selve sullen mede gehouden zijn/ allejaren tusschen de 1 Januarij ende den 1 Mayl haer lieder oude vaten te doen herbranden/...De vaten die sv bevinden sullen haer goede ende oprechtte maet te houden/ sullen sy hebben te branden met het wapen van de stad/ ende ‘t jaer vande brandinghe op de buyck van de tonne/ ende op een andere dyuge van daer de meesters merck staet/ op correctie van de heeren van den gerechte.” Geest 1659: appendix.

37. In Dutch called a doorgaande vaart.

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**BULLETIN BOARD**

**ONLINE**

The Medieval Review can be found at http://www.htl.umich.edu/t/tmr/.

Look at the website for the International Center of Medieval Art http://www.medievalart.org/. On the home page you’ll find a link to PRIMA (Photographic Resources in Medieval Art). This gives contact information for most vendors of photos, both museums/libraries and commercial houses. The prices and the reproduction fees will vary enormously: caveat emptor.

The Corpus of Romanesque Sculpture in Britain and Ireland now has its pilot website running at http://www.crsbi.ac.uk/crsbi/index.html

Browse a repertory of the Hill Monastic Manuscript Library’s microfilm holdings of more than 90,000 pre-1600 manuscripts, archival documents and papyri from Europe and northern Africa through its website: http://www.hmml.org.

A new website has been recently opened by the Musée national du Moyen Age (the Cluny Museum) in Paris: www.musee-moyen-age.fr. The site details the history of the museum, depicts its major sculptures, and announces new exhibits. According to News From France, a monthly newsletter published by the French Embassy in Washington, “This site is the first of a service to create internet sites for the 33 national museums. The next site will be for the National Museum of Asian Arts on 15 January 2001.”

Iconography of Ptolemy’s Portrait, a website devoted to Ptolemy, the second-century astronomer, cartographer and mathematician can be found at http://www.er.uqam.ca/nobel/c14310/Ptolemy/. The site is maintained by Professor Robert Derome and contributions are welcome.

A Tower of Pisa site has been announced at http://torre.duomo.pisa.it.
This official site has images, as well as up-to-date information on the righting of the tower. It is available in an English version.

A brand new site has been installed for the approximately forty galleries and museums of Milan; it will be available in English probably within a half a year:  http://www.rcs.it/minmu/ or http://www.mimu.it.

An on-going project of a corpus of “signatures” of medieval Italian artists, promoted by the Scuola Normale Superiore in Pisa (Italy) under the supervision of Prof. M. Monica Donato. The project website is:  http://www.cribecu.sns.it/corpus_firma. The first volume of the corpus, concerning the Italian High Middle Ages, will be published in 2001 with a section especially devoted to manuscript illuminators.

New pages have been created on the website of the Centre for Reformation and Renaissance Studies at Victoria University in the University of Toronto. The first is a listing of call-for-papers for conferences and publications of potential interest for anyone working on the Renaissance/Reformation/Early Modern period in any discipline. It can be found at  www.library.utoronto.ca/crrs/cfps.htm

The second is a listing of academic job ads. It also includes notices of other sources of funding such as fellowships, etc. The address is:  www.library.utoronto.ca/crrs/jobads.htm

The third is a listing of events, international in scope, related to the same period. It includes seminar, lectures, conferences, exhibitions, summer courses, etc. It can be found at:  www.library.utoronto.ca/crrs/nonlocalevents.htm

Additional announcements and feedback are most welcome and can be emailed to: jpaehlke@chass.utoronto.ca

A CD-ROM on Villard de Honnecourt by AVISTA member Roland Bechmann is on the market. Le Carnet de Villard de Honnecourt, l’Art et les techniques d’un constructeur gothique, Collection Bibliothèque nationale de France/ L’Œil de l’Historien (www.bn.fr), co-produced with Hexagramm, SDI, with the participation of The British Library, the Centre national de la Cinématographie, the Ministère de la recherche, the Conseil régional de Picardie, and the Conseil régional d’Île de France. To purchase this CD-ROM (Mac and PC) consult: Montparnasse Multimedia (www.montparnasse.net), with associated publishers in Canada and England. Or contact: Milledis, Service consommateurs, 21, rue de Choiseul, 75002, Paris, France; email: david@itw.fr; tel: 33 1 40 07 87 32; fax: 33 1 47 42 11 59

CONFERENCE CALENDAR

2 March: City Limits: Urban Culture in the Middle Ages will be the subject of an interdisciplinary conference sponsored by the Centre for Medieval Studies of the University of Toronto. How did medieval people shape their cities, and how did they live in them? What limits did they set with laws, walls, art and ritual, and how did they break out of these limits? As cities expanded, efforts grew to regulate everything from food to entertainment to the use of space. But definitions of urban space through ordinance could be less effective and less meaningful than rituals, theatre, music, and art. Did urban dwellers take either the regulations or the cultural identity seriously, or were they too caught up in daily life to care very much about either? This interdisciplinary conference aims to examine how medieval people looked at their cities as spaces and places, as city-states and states of mind, as markets and missions. Some areas to be explored include: gardens and green spaces; sex in the city; domestic life; commerce and trade; sick cities: illness and plague; city songs, city stories: music and literature; buildings and public spaces; holy cities: civic religion and ritual. Contact CMS Conference Committee. Centre for Medieval Studies, University of Toronto, 39 Queen’s Park Cresc. E, Toronto, ON, Canada, M5S2C3; FAX: 416-971-1398; e-mail: medieval@chass.utoronto.ca

14-16 March: Historians of Netherlandish Art will hold their annual meeting at the Congress Centre ‘t Elzenveld, Antwerp: The Making of Illuminated Manuscripts in Flanders between 1420 and 1550. The past decade has been an exciting one for students of book painting in Flanders from the time of Philip the Good to the death of Margaret of Austria. Those ten years saw the publication of monographs on the illuminators Willem Vrelant (1997), the Master of the Dresden Prayerbook (1997), and the Master of the Ghent Privileges (2000); studies on manuscript centers like Valenciennes (1996) and Amiens (1999); and important catalogues for exhibitions mounted in Paris in 1993 (Manuscrits à peintures en France 1440-1520), in Cambridge in 1993 (Splendours of Flanders), in St. Petersburg and Florence in 1996 (Flemish Illuminated Manuscripts 1475-1550) and in Arras in 2000 (Arras à la fin du Moyen Age). These and many other publications were complemented in 1998 by Mauritius SMEYERS’ magisterial overview Vlaamse miniaturen van de 8ste tot hed midden van de 16de eeuw. This wealth of new writing has both enlarged our understanding of Flemish book painting and raised new methodological questions. In order to both showcase and critically examine this surge of scholarly activity, the present session will offer a forum for recent research on manuscript illumination in francophone and netherlandophone Flanders from 1420 to 1530. Contact: Gregory T. Clark, Dept. of Fine Arts, The University of South, University Avenue, Sewanee TN 37375, e-mail: gclark@seraph1.sewanee.edu or Margaret L. Goehringer, 7 West Bloomfield Road, Pitts NY 14534, email: mgoeh@frontiernet.net

11-13 April: The Renaissance Society of America and the Arizona Center for Medieval and Renaissance Studies will hold a joint, entirely Renaissance, conference at Arizona State University. Contact: Robert Bjork, Director, ACMRS, Arizona State University, Box 872301, Tempe, AZ 85287-2301; tel: 602-965-5900; fax: 602-965-1681; e-mail: acmrs@asu.edu; website: www.asu.edu/clas/acmrs.

17-21 April: Fifty-fifth Annual Meeting of the Society of Architectural Historians will be held in Richmond, VA. For a complete description of sessions and contact information, consult the website: http://www.sah.org.

18-20 April: Kentucky Foreign Language Conference will be held in Lexington. Kentucky and include a special German section, (Re)building Bridges Between Medievalism and Modernism. For further information, contact Siegfried Christoph
2-5 May: Thirty-seventh International Congress on Medieval Studies, Kalamazoo, MI.

1-6 September: The next Congress of the International Society for the History of Medicine will be held in Istanbul, Turkey. Its main topics will be, among others, Medieval Medicine, Medicine in the Near East through History, and The Relation between Turkish Medicine and the Medicine of Eastern and Western Worlds. A panel is being organized on Medicine and Inter-cultural Exchanges: Byzantium, the Arabic World, and the Ottoman Empire.

The panel will be devoted to the circulation of medical knowledge in the Eastern Mediterranean during the Late Middle Ages, especially during the fifteenth and sixteenth centuries in the Balkans and Asia Minor, with a particular attention to Constantinople. The focus will be on the channels of the transfer, its places and actors, together with its impact on knowledge, that is, the transformation of medicine due to its passage from one culture to another.

Contributions based on the analysis of primary sources (including the reports of Western diplomats and explorers) are most welcome. Comparative work would be particularly appreciated. Papers could deal with topics like texts and translations, books and libraries, teaching, sanitary structures, patronage, or treatment of diseases. Please, send as soon as possible proposed title, first abstract, together with full name and affiliation to: atouwaide@hotmail.com


For more information on the Congress, contact: President: Prof. Dr. Nil Sarı, nilsa@turk.net OR nilasari@istanbul.edu.tr; Secretary: Dr. Yesim Islı, yesimul@yahoo.com OR yesimul@superonline.com; Organizer: Cnidus Congress & Tourism Agency, sibel@cnidus-tr.com OR cnidus@cnidus-tr.com.

28-29 November: CHArt Seventeenth Annual Conference, Digital Art History: A subject in transition; opportunities and problems

Like all other subjects, art history is undergoing a process of transformation through engagement with the digital revolution. This conference presents developments that have taken place in the study of art and in its preservation. There will also be demonstrations of current projects and a forum discussion about the ways in which the new technology is offering new and more flexible ways of engaging with art and history, and the merits and demerits of the situation.

Program: Keynote Address: Professor Eric Fernie (Director, Courtauld Inst., London); Session One: Visualising the Past, with papers by Colin Beardon (Univ. of Plymouth, UK), Using dramatic representations to explain historical artefacts on the Web; Dawn Mary Hayes (Iona Coll.), Using digital technologies to restore the late medieval complex of Chartres Cathedral; John Eakins and colleagues (Univ. of Northumbria), A Shape Retrieval System for Watermark Images: The creation of a web-based archive of information on watermarks, paper history and paper conservation using Content-Based Image Retrieval.

Session Two: Contemporary Art and the Digital Age with papers by Michael Hammel (Univ. of Aarhus), Towards a Yet Newer Laocoon; Harald Kraemer (Univ. of Cologne), Fragments and Figments of Knowledge: the documentation of contemporary art; Suzette Worden and Dew Harrison (Univ. of the West of England), Digital Arts On[the]line. Session Three: Teaching will include David Austin (Univ. of Illinois), Visualizing Paris in the Past: a teaching aid; Michael Greenhalgh (Australian National Univ.), The Classroom of the Future; Sylvia Lahav (Tate Modern, London) and Mac Campanuel (City Literary Institute, London), The Tate Modern and City Literary Institute online distance learning course about Tate Modern; Britta Kalkreuter (Heriot-Watt Univ., Edinburgh), Breaking Boundaries—Scholarship and Creativity, or Sources and Archives. Session Four: Sources, Archives, and Research with papers by Jane Carlin (Univ. of Cincinnati), Digital Consortia: Opportunities for Collaboration. A case study from North America—the OhioLINK Digital Media Center; Stefanie Kollmann (Bibliothek für Bildungsgeschichtliche Forschung des Deutschen Instituts für Internationale Pedagogische Forschung, Berlin), Pictura Paedagogica - A German picture resource online; Phillip Purdy (Visual Arts Data Service (VADS), UK), 15 Million Words Worth of Digital Image Source Materials; Włodek Witek (Norwegian Library, Oslo), The South East Asian travels of Explorer Prof. Dr. Morgenstierne. Forum Discussion: What Needs Doing? An open session, chaired by Will Vaughan, in which people are invited to contribute to a discussion about issues raised during the conference and make suggestions about future developments. Demonstrations: Projects demonstrated will include the Scottish Cultural Resources Access Network (SCRAN); The Tate Gallery/City Literary Institute: Online Introduction to Tate Modern; The National Maritime Museum: Online Database of Oil Paintings; Birkbeck College: 18th century. Writings on Art, A Virtual Library; Royal College of Art: “Augmented Reality” and Conservation; The British Academy: The Corpus of Romanesque Sculpture in Britain and Ireland.

Booking: The booking form is available online at: http://www.chart.ac.uk/chart01-form.html.

Send bookings to: Will Vaughan, Chair, CHArt, School of History of Art, Film and Visual Media, 43 Gordon Square London WC1H 0PD. w.vaughan@bbk.ac.uk, Tel: 44-0-207 631 6127; fax: 44-0-207 631 6107.

BUSINESS MEETING OF AVISTA

Thirty-Fifth International Congress on Medieval Studies May 15, 2000, Kalamazoo Michigan

The meeting was called to order at 12:07 p.m. by Warren Sanderson, President.

President's report: Warren Sanderson's farewell

Warren spoke of the highlights of his term as president of AVISTA, of the satisfaction of maintaining the vitality of the organization, and the challenges that it faces if it is to continue to flourish. He conveyed thanks and gratitude to all who have been dedicated to AVISTA'S growth and well being and especially to the officers and board members who have worked with him. Of personal importance were AVISTA'S air of informality, frank discussion and mutual respect. Highlights have been the Ashgate Publishing agreement with Ashgate Press, the inauguration of the web page, and the AVISTA Forum Journal. He strongly recommended that his successor be able to attend annual meetings, be a scholar and democrat, and stand for positive principles. Finally, a name is needed for the Ashgate series, and suggestions should be sent to the new President or Nancy Wu.

AVISTA Forum Journal, Editor's report: Michael Davis
The next issue will include abstracts from the Viilard de Honneckout session, chaired by Carl Barnes, and articles by Warren Sanderson on Aachen and Auxerre Cathedral by Harry Titus. The editor asked if AFJ should continue to list events, conference announcements, and calls for papers? Does the internet and AVISTA’s website, coupled with the bi-annual publication of the journal, justify the time-consuming labor of gathering and entering news and events? The directors advised the continued listing of conferences, exhibitions, events. Lastly, the AFJ needs more submissions of recent reviews, as well as an increase in contributions by scholars of technology. There is no backlog, so the direction and contents of future issues remain completely open. Carl Barnes is to continue to serve as art and architecture editor, with thanks for past contributions.

Richard Sundt raised the question of regularizing the numbering system for journal. It was decided that the issue would be identified by volume, issue number, and year in which the issue appears.

The editor asked for confirmation that the masthead should, indeed, read AVISTA Forum Journal. It was decided that AVISTA Forum Journal should be the official masthead of the journal.

Secretary's Report: Barbara Bowers
The 2001 sessions at Kalamazoo will center on “The Medieval Hospital and Medical Practice.” Work on 2001 is off and rolling and we hope to keep the current number of sessions or even increase them. There has been extensive networking to get the call for papers out (journals, newsletters, and on-line). It has been a disadvantage to work with so many different areas of scholarship. We already have some definite commitments for speakers. We are also exploring cosponsorship of sessions with MEDICA, The Society for the Study of Healing in the Middle Ages.

Treasurer's Report: Harry Titus
Last year was a year of income. This year is a year of outgo. We are in relatively good shape because of the anonymous gift several years ago. We don’t quite meet expenses from dues income, however, we are fine for now. We may need to change dues structure in the near future.

Statistics: 208 journals sent out. 160 dues paying members (People are not dropped from the list until after a number of years). 128 institutional members. 30/35 institutional members. Marie-Thérèse Zenner asked about the proportion of international members. Titus responded that approximately one quarter of the AVISTA membership is foreign. We may need to update the member list, possibly identify and drop nonpaying members.

Publications Committee Report: Nancy Wu
Nancy Wu summarized efforts for publication of the Ad Quadratum volume. Twenty letters of invitation have gone out from list made by herself, William Clark and others in the field, with the intention to include all eight speakers from 1998 and additional scholars. There have been fifteen positive responses, and eight submissions to date. All are expected by the end of June/early July. Four scholars have been engaged as readers and Eric Fernie has agreed to write the introduction. The question was raised by Wu about the adoption of a style sheet for the publication and it was proposed that the AVISTA Forum Journal style sheet be used. Marie-Thérèse Zenner suggested the Speculum style sheet (earlier suggested to her by John Smedley).

The motion was made to use the Speculum style sheet. In the discussion that followed, Michael Davis noted that the AFJ style sheet is based on that of The Journal of the Society of Architectural Historians. Warren Sanderson observed that the differences between the two styles also concerned the number of illustrations. As well, he advised that there needs to be a flexible layout to accommodate illustrations. At the conclusion of the discussion, Nancy Wu offered to review carefully the Speculum style sheet concerning illustrations and to consider the matter. She will also review the question of font type with an eye to insuring uniformity in publication with other AVISTA publications.

Nominations Committee Report: Robert Bork, Chair
The desire is to have a well structured succession and nomination process. For Board nominations, the aim was to have a mix of disciplines. The proposed Board: Kelly De Vries, Robert Jamison, Steve Walton, Ellen Shortell, and Carl F. Barnes, Jr. For the office of President, an open floor was maintained on the list serve. William Clark and Lynn Courtenay were mentioned as possible candidates. Marie-Thérèse Zenner reported that Lynn Courtenay accepted the nomination.

The discussion, with Nigel Hiscock, Marie-Thérèse Zenner, and Robert Bork commenting, reiterated the outgoing President’s concern concerning the President be present and proactive. Harry Titus offered the motion to approve the board slate and move on to discussion of officers, seconded by Kelly De Vries. The vote was unanimous.

Steve Walton will post the board membership on the website. An updated board membership is to be listed in AFJ.

Moving on to the AVISTA officers, it was clarified that Harry Titus is to continue as Treasurer, and Barbara Bowers as Secretary. For the office of Vice President, discussion, with, Harry Titus, Robert Bork, and Richard Sundt commenting, revolved around the question of having one or two Vice Presidents. It was decided that two Vice-Presidents were preferable. Janet Snyder made a motion to vote on the slate of officers composed of Lynn Courtenay, President; Catherine Talarico, Vice President; Carl F. Barnes, Jr., Second Vice President; Harry Titus, Treasurer; Barbara Bowers, Secretary. Stephen Murray seconded the motion. Carl Barnes declined to be Vice President, but will remain active in assisting AVISTA.

In the ensuing discussion, the responsibilities of the Vice-President were considered in relation those of the President. Stephen Murray called for a synopsis of by-laws. Although the President should attend the annual business meetings, Carl Barnes commented that the Vice President presides if the President is not available. Richard Schneider then made a call to record in the minutes that the key issue is not the President’s presence at the meetings, but rather the President’s activity throughout the year in keeping the momentum of the organization coordinated and, especially, in keeping communication open. Warren Sanderson suggested that it should be an expectation that the President attend the annual business meeting, although this was a decision to be made by the board of directors. It is also a question of personal style. Following comments by Richard Sundt, Charles Stegeman, Warren Sanderson, and Stephen Murray, Warren Sanderson called for a vote on the slate. The slate carried by an overwhelming vote.

Harry Titus raised the issue of having one or two board members serve on the executive committee (term is one year). Paul Gans nominated Carl F. Barnes, Jr. and Charles Stegeman for the nominations. No other nominations were forthcoming. Warren Sanderson called for a vote which was unanimous.
NOTES FOR CONTRIBUTORS

To facilitate preparation of the AVISTA Forum Journal, the editor requests contributors to follow the guidelines listed below.

Form
1. Manuscripts must be clearly printed on a letter-quality printer on standard size paper. Please use ten or twelve point type.

2. If possible, send the disk of your manuscript prepared on Microsoft Word for Macintosh. Include a hard-copy print-out with your disk.

3. Provide author's name, institutional affiliation or city of residence on the title page of the manuscript.

4. Notes must be supplied at the end of the manuscript on separate pages. Please do not embed them in the text.

Illustrations
1. Illustrations are the responsibility of authors. You may send legible photocopies of visual material for the initial submission of your manuscript. For publication, high-quality, glossy black-and-white prints are essential. They should be no smaller than 5 by 7 inches.

2. Original drawings should be submitted whenever possible, although high-quality photocopies of line drawings are acceptable. The editor will not redraw faint copies or attempt to interpret ambiguous sketches.

3. Authors are responsible for obtaining permission to reproduce illustrations when necessary and for any fees associated with their publication.

4. Authors should provide illustration captions printed on separate pages at the end of the manuscript. Information should include the name of the building or object, location, date, specific description of image, source: e.g. Saint-Urbain, Troyes, begun ca.1263, interior, choir (photo: M. Davis).

Miscellany
1. Dates: use figures and numbers as 10 June 1194. Form the plural decade without the apostrophe: 1130s. For bracket dates write each year in full: 1220-1269, not 1220-69.
Contributions on any aspect of medieval science, technology, or art in Europe or Asia or their impact on and afterlife in the modern world are invited. Analytical and critical reviews of recent publications (articles, books, electronic) are invited.

Please send articles or reviews to:

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