



ŚREDNIOWIECZNY ZESPÓŁ REZYDENCJONALNY NA GÓRZE KATEDRALNEJ W CHEŁMIE

pod redakcją Andrzeja Buko

Instytut Archeologii i Etnologii Polskiej Akademii Nauk

Średniowieczny zespół rezydencjonalny na Górze Katedralnej w Chełmie

pod red. Andrzeja Buko

Warszawa
2019



Wydawnictwo Instytutu Archeologii i Etnologii Polskiej Akademii Nauk
Al. Solidarności 105, 00-140 Warszawa
www.iaepan.edu.pl; bookshop@iaepan.edu.pl

Praca recenzowana przez Komisję Wydawniczą Instytutu Archeologii i Etnologii Polskiej Akademii Nauk w składzie:

dr hab. Andrzej Janeczek, prof. IAE PAN (przewodniczący); dr hab. Kamila Baraniecka-Olszewska, prof. IAE PAN; prof. dr hab. Mirosława Drozd-Piasecka; dr hab. Dariusz Główka, prof. IAE PAN; prof. dr hab. Iwona Kabzińska; prof. dr hab. Andrzej Klonder; dr Małgorzata Mogielnicka-Urban; dr Maciej Trzeciecki

oraz:

dr hab. Andrzej Gil, prof. Katolickiego Uniwersytetu Lubelskiego
dr hab. Joanna Kalaga, prof. Uniwersytetu Warszawskiego

Współpraca redakcyjna: Stanisław Gołub, Tomasz Dzieńkowski

Transliteracja znaków w monografii zgodnie ze standardami ISO

Redakcja, korekta: Aleksandra Zych

Tłumaczenia: Karolina Płoska, Maciej Trzeciecki, oraz Krzysztof Misiewicz, Stanisław Fedorowicz
i Borys Paszkiewicz

Projekt okładki: Teresa Witkowska

Zdjęcie na okładkę: Andrzej Buko

Skład: Dariusz Skalski

© Copyright by Instytut Archeologii i Etnologii Polskiej Akademii Nauk and individual authors, Warsaw, 2019

ISBN: 978-83-953153-9-8

Druk: Drukarnia Biały Kruk Milewscy Sp.J.

Spis treści

1. Góra Katedralna w Chełmie: sto lat historii badań	5
<i>(Andrzej Buko)</i>	
2. Źródła pisane do dziejów Góry Katedralnej w Chełmie	15
<i>(Dariusz Dąbrowski)</i>	
2.1. Wstęp. 2.2. Historia ziemi chełmskiej i okoliczności założenia Chełma. 2.3. Wysoka Górką i obiekty na niej się znajdujące w relacji <i>Kroniki halicko-wołyńskiej</i> . 2.4. Uwagi <i>Kroniki halicko-wołyńskiej</i> na temat dalszych losów rezydencji Daniela po jego śmierci. 2.5. Wysoka Górką w późnym średniowieczu oraz w świetle relacji staropolskich. 2.6. Wykopaliska Piotra Pokryszkina	
3. Góra Katedralna w Chełmie w świetle wyników badań środowiskowych	55
<i>(Radosław Dobrowolski)</i>	
3.1. Cel, zakres i metodyka badań środowiskowych. 3.2. Położenie stanowiska badawczego. 3.3. Warunki hydrogeologiczne Góry Katedralnej. 3.4. Wyniki badań geologicznych i geomorfologicznych	
4. Nieinwazyjne badania założenia rezydencjonalnego na Górze Katedralnej w Chełmie	69
<i>(Krzysztof Misiewicz, Filip Brzeziński)</i>	
4.1. Ortofotografia i modele trójwymiarowe. 4.2. Prospekcja magnetyczna. 4.3. Badania georadarowe. 4.4. Prospekcja elektrooporowa	
5. Analiza stratygraficzna i zmiany topografii Wysokiej Górką	93
5.1. Stratygrafia Wysokiej Górką w świetle badań wykopaliskowych z lat 2010–2018	95
<i>(Tomasz Dzieńkowski, Vasyl Petryk)</i>	
5.1.1. Faza I. Pierwszy zespół rezydencjonalny w południowej części Wysokiej Górką. 5.1.2. Faza II. Budowa jednoczłonowego założenia. 5.1.3. Użytkowanie założenia w fazach III i IV	
5.2. Chronologia i związki przestrzenne chełmskiej rezydencji	121
<i>(Tomasz Dzieńkowski)</i>	
5.3. Zagadkowy epizod z dziejów nowożytnych: grób mężczyzny po stronie północnej kulminacji	129
<i>(Stanisław Gołub, Beata Borowska)</i>	
5.3.1. Opis grobu i trumny z pochówkiem. 5.3.2. Ekspertyza antropologiczna. 5.3.3. Podsumowanie i datowanie	
6. Surowce, materiały i technologie trzynastowiecznego zespołu rezydencjonalnego na Górze Katedralnej w Chełmie	133
<i>(Lucjan Gazda, Stanisław Gołub, Mykola Bevz)</i>	
6.1. Wstęp. 6.2. Materiały kamienne. 6.3. Sztuczne kamienie budowlane. 6.4. Zaprawy budowlane. 6.5. Podsumowanie	
7. Architektura rezydencji na Wysokiej Górze w Chełmie	151
7.1. Opis reliktyw architektury: część południowa Wysokiej Górką	153
<i>(Aneta Bukowska)</i>	
7.2. Opis reliktyw architektury: część północna Wysokiej Górką	173
<i>(Jurij Łukomskiy)</i>	
7.3. Ciosy i detale architektoniczne z badań na Wysokiej Górze	181
<i>(Mykola Bevz)</i>	
7.4. Interpretacja form i funkcji obiektów architektonicznych w świetle materiału porównawczego	195
<i>(Teresa Rodzińska-Chorży)</i>	
7.4.1. Wysoka Górką w źródłach ikonograficznych. Historia i stan badań nad architekturą. 7.4.2. Gród i rezydencja Daniela Romanowicza: przekształcenia architektury w kolejnych fazach użytkowania. 7.4.3. Relikty architektury w świetle faz wydzielonych przez Dariusza Dąbrowskiego: próba synchronizacji danych. 7.4.4. Źródła inspiracji dla najstarszej fazy rezydencji Daniela Romanowicza w Chełmie. 7.4.5. Rezydencja w Chełmie w przekazie <i>Kroniki halicko-wołyńskiej</i> , w świetle wykopalisk oraz w kontekście symbolicznym	

8. Zabytki ruchome	225
8.1. Ogólna charakterystyka grup znalezisk	227
<i>(Stanisław Golub)</i>	
8.1.1. Wstęp. 8.1.2. Zabytki krzemienne, pradziejowe i ze starszej fazy wczesnego średniowiecza. 8.1.3. Zabytki w podziale na części południową i północną. 8.1.4. Podsumowanie	
8.2. Ozdoby – części stroju – dewocjonalia	235
<i>(Barbara Chudzińska, Marcin Wołoszyn)</i>	
8.2.1. Ozdoby i części stroju, ozdoby dłoni. 8.2.2. Dewocjonalia i inne zabytki związane ze sferą sacrum. 8.2.3. Podsumowanie	
8.3. Militaria z badań na Wysokiej Górze	247
<i>(Piotr Strzyż)</i>	
8.3.1. Broń sieczna, obuchowa i miotająca. 8.3.2. Groty strzał i beltów. 8.3.3. Pozostałe znaleziska uzbrojenia. 8.3.4. Podsumowanie. 8.3.5. Katalog militariów	
8.4. Monety na Wysokiej Górze – ekonomia, kult czy polityka?	273
<i>(Arkadiusz Panic, Borys Paszkiewicz)</i>	
8.4.1. Ogólny przegląd chronologii monet. 8.4.2. Chronologia monet w kontekście danych archeologicznych. 8.4.3. Monety z Wysokiej Górze a obieg pieniężny. 8.4.4. Katalog systematyczny monet	
9. Ceramika z Wysokiej Górze	295
<i>(Michał Auch)</i>	
9.1. Wstęp. 9.2. Metody. 9.3. Struktura gatunkowa zbioru. 9.4. Analiza zbioru. 9.5. Analiza dystrybucji wybranych cech zbioru. 9.6. Podsumowanie wyników badań	
10. Modele konsumpcji zwierzęcej w świetle wyników badań archeozoologicznych	325
10.1. Szczątki zwierzęce z południowej części zespołu rezydencjonalnego na Wysokiej Górze w Chełmie	327
<i>(Alicja Lasota-Moskalewska, Kamil Niemczak)</i>	
10.1.1. Metody badawcze. 10.1.2. Wyniki badań z lat 2010–2012. 10.1.3. Omówienie wyników	
10.2. Szczątki ssaków i ptaków z północnej części zespołu rezydencjonalnego na Wysokiej Górze w Chełmie	335
<i>(Joanna Piątkowska-Malecka)</i>	
10.2.1. Materiał i metody badawcze. 10.2.2. Wyniki analizy archeozoologicznej. 10.2.3. Konsumpcja mięsa i rola zwierząt w życiu budowniczych i mieszkańców rezydencji na Wysokiej Górze w Chełmie. 10.2.4. Podsumowanie	
10.3. Ryby w diecie mieszkańców zespołu rezydencjonalnego na Wysokiej Górze w Chełmie	357
<i>(Urszula Iwaszczuk, Wim Wouters)</i>	
10.3.1. Materiał i metody. 10.3.2. Wyniki badań. 10.3.3. Analiza wyników i podsumowanie	
11. Złożone epizody dziejów rezydencji królewskiej na Górze Katedralnej w Chełmie: próba podsumowania wyników badań interdyscyplinarnych	379
<i>(Andrzej Buko)</i>	
11.1. Faza najstarsza: plac budowy i spór o funkcję prostokątnego muru obwodowego. 11.2. Niespodziewana i wymuszona zmiana planu zabudowy rezydencjonalnej. 11.3. Pożar w 1256 roku i kolejna odbudowa zespołu rezydencjonalnego. 11.4. Budowniczości i użytkownicy rezydencji: świadectwa archeologiczne. 11.5. Uwagi końcowe	
Aneksy	397
Aneks I. Datowania ¹⁴C z części południowej (Tomasz Goslar)	399
Aneks II. Datowania ¹⁴C i dendrochronologiczne z części północnej (Marek Krąpiec)	401
Aneks III. Datowania próbek cegieł z północnej części zespołu rezydencjonalnego na Górze Katedralnej w Chełmie (Stanisław Fedorowicz)	403
Aneks IV. Pozostałości tkaniny zachowane przy fragmentach kołczugi z Wysokiej Górze w Chełmie. Analiza surowca i technologiczna (Łukasz Antosik)	407
Bibliografia	409
<i>(zestawiła Natalia Jędruszczak)</i>	
Summary with list of Figures and Tables.	435

1

**GÓRA KATEDRALNA W CHEŁMIE
STO LAT HISTORII BADAŃ**

1. Góra Katedralna w Chełmie: sto lat historii badań

Andrzej Buko¹

Góra Katedralna jest charakterystycznym elementem krajobrazu współczesnego Chełma (ryc. 1.1). Dla wielu pozostaje też symbolem świętości miasta o niemal tysiącletniej historii, a zarazem wielką zagadką badawczą. Nic więc dziwnego, że od dawna budziła zainteresowanie zarówno profesjonalnych badaczy-regionalistów, jak i licznych miłośników miasta. Sprzyjała temu rola, jaką miejsce to odegrało w najdawniejszych dziejach narodów polskiego i ruskiego, uwieczniona m.in. w przekazach źródłowych.



Ryc. 1.1. Góra Katedralna w Chełmie (widok od zachodu). Po lewej stronie zalesiona kulminacja Wysokiej Górki – miejsce rezydencji książęcej (fot. A. Buko)

Dotyczy to zwłaszcza czasów świętości Chełma w pierwszej połowie XIII wieku, gdy ośrodek ten, gruntownie przebudowany i urządzony przez Daniela Romanowicza – jednego z najwybitniejszych władców epoki – stał się nie tylko rezydencją księcia, ale faktyczną stolicą księstwa halicko-wołyńskiego.

Na Górze Katedralnej funkcjonuje do dziś sanktuarium religijne z okresu wczesnego średniowiecza. Znajduje się tutaj ikona Matki Boskiej Chełmskiej, będąca od czasów Daniela świętym wizerunkiem Bogurodzicy, która stała się przedmiotem kultu religijnego dwóch narodów: polskiego i ukraińskiego (ryc. 1.2).

Już w odległej przeszłości podejmowano próby poznania pierwotnej topografii wzgórza, w którego północnej części (Wysoka Górka) znajdować się miały, zgodnie z przekazem *Kroniki halicko-wołyńskiej*, świątynia św. Jana Złotoustego oraz palatium wzniesione przez księcia Daniela.

Trzyletnie prace terenowe badaczy rosyjskich, przeprowadzone na początku XX wieku pod kierownictwem Piotra Pokryszkina, miały na celu odsłonięcie murów rezydencji książęcej. Już w pierwszym roku ich realizacji (1910) w dwóch wykopach usytuowanych w południowej części wzgórza natrafiono na jego skraju na mur o grubości 2 m, zachowany do wysokości 4 m (ryc. 1.3:a). W latach następnych (1911–1912) strategia badań podporządkowana została całkowicie odsłonięciu murów pałacowych. Brak środków finansowych nie pozwolił na kontynuację prac. Dominowało wówczas przekonanie, że gród Daniela został pobudowany na innym, istniejącym tu wcześniej (por. P. A. Rappoport 1954).

1 Instytut Archeologii i Etnologii Polskiej Akademii Nauk, Warszawa



Ryc. 1.2. Katedra chełmska (fot. A. Buko) i cudowna ikona Bogurodzicy (za: V. Aleksandrovič 2001)

Po raz drugi prace na Wysokiej Górze podjęto w latach 60. XX wieku. Realizował je wówczas zespół badaczy z ośrodków akademickich Lublina i Krakowa, kierowany przez Wiktora Zina. Niestety, wyniki tych badań nie zostały w pełni opracowane. Zdaje się z nich jednak wynikać, że w wykopie zlokalizowanym na południowym stoku Wysokiej Górki znaleziono zachowane w dobrym stanie fortyfikacje typu skrzyniowego. W północnej części wzgórza odkryto też wjazd w obręb fortyfikacji (W. Zin, W. Grabski 1967a). Na podstawie dokonanych wówczas odkryć uznano, że cały obszar Wysokiej Górki był zajęty przez stosunkowo dobrze zachowany

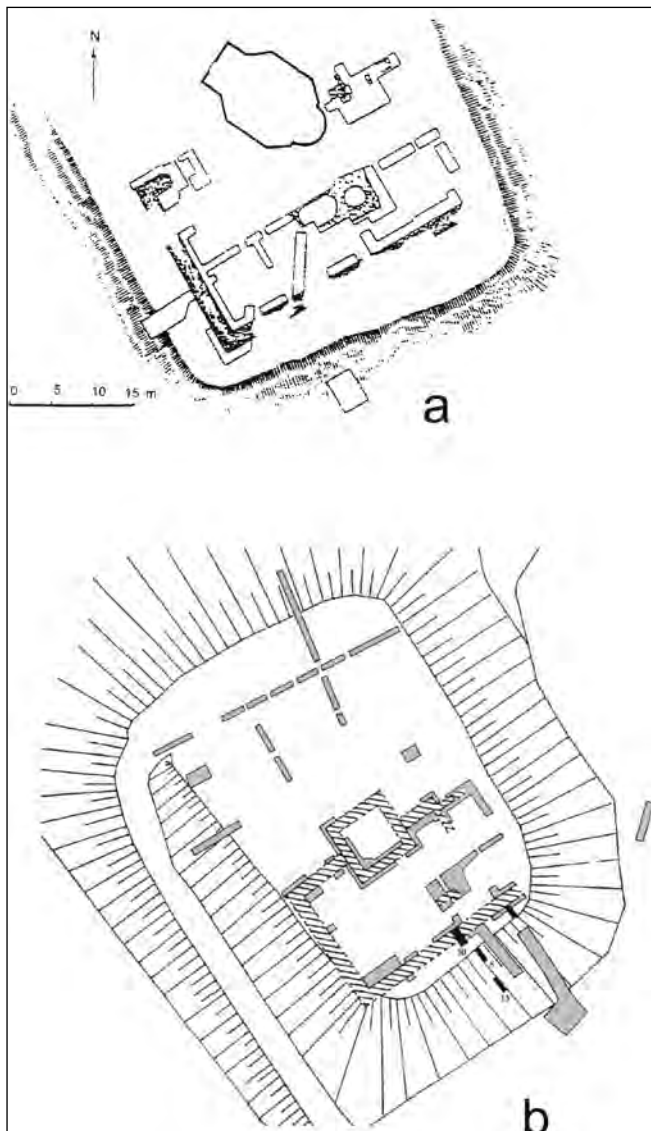
gród obronny o kilku fazach rozwojowych. Wyniki te nawiązywały w dużym stopniu do wcześniejszych spostrzeżeń Pokryszkina, które zostały wszakże negatywnie zweryfikowane we wspomnianej publikacji Pawła Rappoport (1954).

Drugim elementem, na którym skoncentrował się zespół Zina, były relikty badanego już uprzednio Danielowskiego palatium. W trakcie prowadzonych prac od strony wschodniej odkryto część budowli o wymiarach 22×38 m (por. ryc. 1.3:b). Badacze podkreślili, że fundamenty rezydencji zniszczyły elementy starszego wału obronnego grodu, gdyż zachowane relikty budowli Danielowskiej posadowione były częściowo na zniszczonych „skrzyńcach” starszych fortyfikacji.

W środkowej części *plateau* wzgórza odsłonięto pełny zarys kwadratowej budowli kamiennej o boku długości 12 m i murach „znacznej” grubości. Odkrywczy podkreślili jej następstwo chronologiczne względem odkrytego palatium, została bowiem posadowiona na jego destrukcjach. Obiekt ten wydatowano na czasy Kazimierza Wielkiego i zinterpretowano jako dolne partie kwadratowej wieży mieszkalnej. Odnotujmy w tym miejscu obecność wewnątrz muru obwodowego rezydencji enigmatycznych struktur architektonicznych, datowanych wstępnie (podstawa datowania pozostaje nieznana) na okres XI–XII wieku.

Badania z lat 60. XX wieku wniosły interesujące, choć niezupełnie zbieżne z ustaleniami Pokryszkina, dane do znajomości zagadnienia, szczególnie w zakresie rozplanowania przestrzennego odkrytych elementów architektury kopalnej (por. ryc. 1.3). Za największe mankamenty przeprowadzonych prac uznać należy: brak jakichkolwiek danych na temat stratygrafii Wysokiej Górki oraz wzajemnych relacji warstw i obiektów, sprzeczne opinie na temat ilości i jakości znajdujących tu zabytków ruchomych (bez sprecyzowanego kontekstu ich znalezienia) oraz enigmatyczne informacje o istnieniu w tym rejonie domniemanego starszego grodu i ewentualnego miejsca kultu pogańskiego – co wynikać miało z badań zrealizowanych na początku XX wieku, jak i późniejszych (starszy gród). Osobną kwestią jest wspomniana wyżej wzmianka w pracach badaczy z lat 60. XX wieku o tajemniczym murze, co do którego istniało przypuszczenie, że może być starszy od zachowanych relikwów trzynastowiecznej rezydencji księcia (od 1253 roku króla) Daniela.

Po niemal czterdziestu latach, u progu XXI wieku, przeprowadzono niewielkie prace rozpoznawcze w rejonie południowej skarpy Wysokiej Górki. Ich celem było rozpoznanie stratygrafii w tej części wzgórza oraz określenie charakteru i warunków zalegania relikwów architektonicznych identyfikowanych z rezydencją Daniela. Badania wykazały, że odsłonięte tu kamienne relikwety murów należą do budowli, która miała co najmniej dwie fazy użytkowania. W fazie II na stoku wybudowano trzy kamienne tarasy, o długości 1,70 m każdy, które stanowiły podstawę wznoszonych na nich konstrukcji drewniano-ziemnych. Całe wzgórze zostało u podnóża obudowane kamienną opaską i oddzielone od



Ryc. 1.3. Dwa plany odkrytych relikwów architektury rezydencjonalnej: a – z badań Piotra Pokryszkina (za: P. A. Rappoport 1954), b – z badań Wiktora Zina (za: W. Zin, W. Grabski 1967a)

reszty Góry Katedralnej fosą o szerokości 5 m (por. A. Buko 2005).

Weryfikacyjne prace terenowe zrealizowane w roku 2001 ujawniły kilka istotnych elementów, na które chciałbym zwrócić uwagę. Okazało się, że mur palatium nie stoi na relikwach starszego grodu, lecz na skalnej podstawie pierwotnego podłoża (zielony piaskowiec, opoka kredowa, zbite ły), około 3,5 m poniżej kulminacji skarpy (ryc. 1.4). Materiał do jego budowy pozyskano najpewniej z Wysokiej Górki. Przemawia za tym obecność w murze zielonego glaukonitytu w postaci obrobionych ciosów, ale nade wszystko zastanawiająco duże ilości odpadów produkcyjnych, występujących w rumoszu budowlanym i w wypełnieniach muru. Wyniki przeprowadzonej analizy stratygraficznej upoważniają też do stwierdzenia, że odkryta budowla miała co najmniej dwie fazy użytkowania. W fazie I była całkowicie odsłonięta na skarpie Wysokiej Górki i posadowiona bezpośrednio na kamiennym podłożu wzgórza. W fazie II dobudowano do niej, do wysokości co najmniej 2,5 m od podstawy muru, elementy konstrukcji kamienno-drewniano-ziemnych tworzących system obudowy (fortyfikacji) całej skarpy wzgórza.

Drewno udokumentowane w wykopie usytuowanym na skarpie południowej (por. ryc. 1.3:b) nie łączy się jednak z fazą najstarszego grodu, lecz raczej z ostatnim etapem funkcjonowania zespołu pałacowego. Całość (lub część) założenia pałacowego uległa najpewniej pożarowi, o czym świadczą nie tylko resztki spalonych belek, znajdujące w różnych warstwach, ale również duży odsetek fragmentów wtórnie zwitryfi-

kowanej ceramiki, co wskazywać może na wysokie temperatury i długi czas działania ognia.

Na podstawie wyników badań uznano, że Wysoka Górka jest co najmniej w połowie tworem sztucznym, powstałym z destruktywów znajdujących się na tym terenie monumentalnych budowli. To pochodzący z nich materiał uformował obecną bryłę wzniesienia (A. Buko 2005).

Wobec braku jednoznacznych rozstrzygnięć wielu przedmiotowych kwestii, kluczowym miejscem dla dalszych prac terenowych i prospekcji geofizycznych była środkowo-wschodnia część wzniesienia, gdzie znajdowały się relikty nierozpoznanych dotąd budowli, uznawanych za starsze od muru palatium, w tym pozostałości kwadratowej wieży (?) z okrągłym wnętrzem, o nieznanym związku do murów Danielowskiego pałacu. Jej głębokość sięgająca 4 m, stwierdzona w trakcie badań z lat 1910–1912, zdawała się wskazywać, że posadowiono ją na gruncie naturalnym. Niezbędne były też dalsze studia, prowadzone przy współudziale geologów, mające na celu pełne wyjaśnienie osobliwości i miejsc występowania zielonego piaskowca – glaukonitytu. Wielką niewiadomą pozostawały m.in. geomorfologia i pierwotna topografia Góry Katedralnej. Z drugiej strony interesujący potencjał badawczy miały liczne detale architektoniczne znalezione przez Pokryszkina, pochodzące najpewniej z założenia pałacowego i związanej z nim świątyni.

Te i wiele innych kwestii stanowiły punkt wyjścia kolejnych prac badawczych, zainicjowanych w roku 2010 i realizowanych w ramach projektu badawczego Ministerstwa Nauki i Szkolnictwa Wyższe-

go². Składały się one z następujących modułów badawczych: 1 – kwerend archiwalnych obejmujących źródła pisane dotyczące Chełma czasów Daniela Romanowicza, 2 – badań przyrodniczych, których celem było odtworzenie pierwotnej topografii tego terenu i jego przekształceń w czasie, 3 – badań nieinwazyjnych zrealizowanych na Wysokiej Górze, 4 – kompleksowych interdyscyplinarnych prac archeologicznych i związanych z nimi badań architektury kopalnej zachowanej w południowej części Wysokiej Górki, stanowiącej północną kulminację Góry Katedralnej (ryc. 1.5).



Ryc. 1.4. Mur obwodowy rezydencji książęcej odsłonięty w 2001 roku w wykopie 10 przy południowej skarpie Wysokiej Górki (por. ryc. 1.3:b): a – zniszczona powierzchnia muru, b – poziom posadowienia (fot. A. Buko)

Prace terenowe przeprowadzone w latach 2010–2013 ukazały niezwykle skomplikowany obraz historii wzgórza, którego głównym elementem była rezydencja książęca (od roku 1253 królewska), wzniesiona i użytkowana najpewniej pomiędzy drugą dekadą XIII a drugą połową XIV wieku (por. ryc. 1.6). W świetle dawniejszych, jak i nowszych badań wydawało się, że główne elementy architektoniczne rezydencji znajdowały się w południowej części wzniesienia, podczas gdy w części północnej dopatrywano się obszernego dziedzińca (por. A. Buko et al. 2014). Ten obraz zabudowy został zweryfikowany negatywnie przez wyniki badań wykopaliskowych podjętych w 2013 roku w północnej części wzgórza. Ujawniły one w tym miejscu kolejną budowlę, stanowiącą integralny element strukturalny zespołu rezydencjonalnego³. Odsłonięto wówczas pozostałości zwalonej kamiennie-ceglanej ściany monumentalnego budynku, pochodzącego z okresu Danielowskiego, i towarzyszące mu wielometrowe stratyfikacje (ryc. 1.7). Jego funkcja (świątynia św. Jana? św. Trójcy? św. św. Kosmy i Damiana? budowla świecka?) była nieznana i okazała się wielką naukową zagadką, szczególnie w świetle innych odkryć dokonanych w latach 2010–2013.

Odkrycie wspomnianej budowli generowało kolejne pytania: jak była zorganizowana przestrzeń domniemanego dziedzińca, położonego na zewnątrz zabudowy rezydencjonalnej, w północnej części Wysokiej Górki? Czym była i jakie funkcje spełniała owa tajemnicza kamiennie-ceglana budowla? Czy tylko ją wzniesiono wówczas w tej części wzgórza? Z jakim wydarzeniem się wiązała i co było przyczyną katastrofy budowlanej, której świadectwem są ślady ognia widoczne w zawałonej ścianie budynku? Przypomnijmy, że rok 1256 wzmiankowany jest w *Kronice halicko-wołyńskiej* jako data wielkiego pożaru. W jakich relacjach pozostają odsłonięte tu stratyfikacje do tych udokumentowanych w południowej części wzgórza?

Niezwykle interesująca wydawała się obecność w murze nowo odkrytej budowli cegły romańskiej typu zachodniego (palcówki), użytej tu jako materiał budowlany (podobnych praktyk nie odnotowano po południowej stronie kulminacji). Tak wczesne pojawienie się cegły tego typu na ówczesnych tere-

2 Projekt badawczy MNiSW zatytułowany *Zespół rezydencjonalno-sakralny na Górze Katedralnej w Chełmie* (nr N N527 198138) realizowany był w latach 2010–2013 w Instytucie Archeologii i Etnologii PAN w Warszawie, pod kierunkiem Andrzeja Buko.

3 Prace w terenie, prowadzone przez dr. Tomasza Dzieńkowskiego w ramach firmy Usługi Archeologiczne, zostały sfinansowane przez samorząd miasta Chełma.

nach księstwa włodzimiersko-halickiego jest architektonicznym ewenementem, wymagającym podjęcia dalszych prac weryfikacyjnych.

Wszystkie te kwestie, niezbędne dla przygotowania publikacji, wymagały poszerzenia dotychczasowego pola badań, a tym samym włączenia również nowych odkryć do obiegu naukowego. W tej sytuacji podjęto decyzję o przygotowaniu kolejnego projektu badawczego dla północnej części Wysokiej Górki⁴. Jego punktem wyjścia była hipoteza zakładająca, że w czasach Daniela zabudową rezydencjonalno-sakralną objęto nie tylko południową, ale również północną część wzgórza.



Ryc. 1.5. Wysoka Górka (północna krawędź Góry Katedralnej), widok od strony północno-zachodniej (fot. A. Buko)

Kluczowym zadaniem pozostawało rozpoznanie i interpretacja funkcjonalna i chronologiczna istniejącej tu zabudowy, zwłaszcza jej początków, zasięgu i kolejnych etapów rozwoju. Planowano dokładne rozpoznanie archeologiczne nowo odkrytej budowli oraz jej kontekstu osadniczego, w tym charakteru nawarstwień i konstrukcji nasypu, na którym wznoszono budowle. Przedmiotem analiz miały też być szeroko rozumiane relacje stratygraficzne, chronologiczne i funkcjonalne pomiędzy północną i południową częścią wzgórza.

Duże znaczenie przywiązywaliśmy do zainicjowanych już wcześniej, w ramach poprzedniego projektu (2010–2013), prac geologiczno-geomorfologicznych w północnej części Wysokiej Górki (por. A. Buko et al. 2014). Poszerzenie zakresu wierceń, uzupełnionych głębokimi wykopami w strefie skłonów wzniesienia, miało umożliwić określenie granicy litologicznej między masywem skalnym *in situ* a kamienną platformą wybudowaną na kulminacji. Oczekiwano przy tym wyznaczenia jej zasięgu przestrzennego, a także określenia kontekstu litologicznego kredowo-paleoceńskiego masywu skalnego, w tym miąższości stropowej skały glaukonitytowej. Nie mniej istotne wydawało się określenie struktury, miąższości i typu nawarstwień antropogenicznych (nasypowych) wzgórza i odtworzenie jego pierwotnej topografii. W planach mieliśmy też analizę geoprzestrzenną stanowiska z użyciem technik GPS i GIS.

Uzyskane wyniki badań archeologiczno-architektonicznych wymagały kompleksowej analizy danych w kontekście całej Wysokiej Górki. Zakładano, że opracowanie wyników oparte będzie na analizie wydzielonych jednostek stratygraficznych, traktowanych jako zdarzenia jednostkowe – zatem efekty celowej działalności człowieka. Na badanym terenie obejmują one zachowane struktury architektoniczne, warstwy kulturowe o heterogennym charakterze i pochodzące z nich liczne artefakty archeologiczne. Opis sekwencji nawarstwień stanowiska wymagał zatem ustalenia relacji pomiędzy jednostkami stratygraficznymi, określenia funkcji warstw i zgrupowania ich w obrębie jednoczasowych działań, jak i faz osadniczych.

4 Projekt Narodowego Centrum Nauki zatytułowany *Północna część książęcego zespołu rezydencjonalnego na Górze Katedralnej w Chełmie* (nr 2014/13/B/HS3/04930) realizowany był w latach 2015–2018 w Instytucie Archeologii i Etnologii PAN w Warszawie, pod kierunkiem Andrzeja Buko.



Ryc. 1.6. Wykopy archeologiczne i odkrycia architektury kopalnej po południowej stronie Wysokiej Górki; po prawej stronie (u dołu) zarys nowożytnego kopca centralnego (fot. M. Bogacki)



Ryc. 1.7. Lokalizacja wykopu 37 po północnej stronie Wysokiej Górki (fot. T. Dzieńkowski i M. Bogacki; oprac. komputerowe całości A. Buko)



Ryc. 1.8. Uczestnicy badań terenowych w 2011 roku. Po lewej stronie (u dołu) studentka i doktoranci z Pekinu oraz Granady (fot. S. Gołub)

W ciągu pierwszych trzech lat badań (2010–2013) założono 38 wykopów (nr 17–37 wraz z częściami A–C) o łącznej powierzchni 325,35 m². Był to obszar wielokrotnie większy od tych przebadanych wcześniej⁵. W kolejnych latach (2013–2018) otworzono 10 wykopów, oznaczonych numerami 38–47, o łącznej powierzchni 553,35 m², usytuowanych po północnej stronie Wysokiej Górki. W opracowaniu uwzględniono również wyniki badań trzech wykopów (nr 34, 34A i 34B) o powierzchni 12,3 m², wykonanych w obrębie wieży w czasie prac konserwatorskich.

Przez cały okres trwania projektu uczestniczyli w nim badacze z różnych ośrodków akademickich, w tym spoza Polski. Prezentowane dalej wyniki ilustrują pracę Zespołu zarówno w trakcie prowadzonych wykopalisk, jak i podczas kwerend i analiz związanych z opracowywaniem pozyskanych zasobów źródłowych.

Badania na Wysokiej Górze w Chełmie stały się też poligonem doświadczalnym dla praktyk i staży doktoranckich, dla studentów polskich (głównie z Uniwersytetu Warszawskiego) i zagranicznych – z Włoch, Hiszpanii, Chin, USA i Ukrainy (ryc. 1.8). Dzięki organizowanym przez ekipę badawczą dniom otwartym wykopaliska spełniały również ważną rolę edukacyjną dla miejscowej społeczności (ryc. 1.9). Tutaj odbyła się też wyjazdowa sesja Rady Miasta Chełma (ryc. 1.10). Prace wykopaliskowe i będące ich efektem odkrycia sprzyjały kontaktom przedstawicieli zainteresowanych środowisk (ryc. 1.11), a wyniki naszych badań były na bieżąco relacjonowane przez środki masowego przekazu i dokumentowane w celu ich utrwalenia i upowszechnienia społecznego (ryc. 1.12).

Istotnym wsparciem logistycznym dla opisywanych przedsięwzięć była pomoc udzielana ekspedycji przez samorząd i władze miasta Chełma, Delegaturę Wojewódzkiego Urzędu Ochrony Zabytków, Parafię Rzym-

5 Dla porównania: Pokryszkin (1910–1912) – 119,4 m²; Zin (1966–1968) – 94,25 m².



Ryc. 1.9. Dzień otwarty wykopalisk: archeolog Tomasz Dzieńkowski (w wykopie) i liczne grono zainteresowanych historią badanego miejsca (fot. A. Buko)



Ryc. 1.10. Wyjazdowa sesja Rady Miasta Chełma: władze miasta i radni na terenie wykopalisk (fot. S. Gołub)

skokatoliczką p.w. Narodzenia NMP w Chełmie, Muzeum Ziemi Chełmskiej im. Wiktora Ambroziewicza oraz chełmską Państwową Wyższą Szkołę Zawodową.

Godnym podkreślenia aspektem badań chełmskich był ich wymierny, pozytywny odbiór społeczny. Chodzi o oddziaływanie ukierunkowane nie tylko na miłośników miasta i regionu, ale także na naszych ukraińskich sąsiadów. Nasze działania służyły upowszechnianiu wiedzy o wspólnych epizodach w historii Polski i Ukrainy, co uważamy za jeden z liczących się sukcesów na polu współpracy naukowej pomiędzy obydwoma krajami (ryc. 1.13)⁶.

Prezentowane opracowanie składa się z 11 rozdziałów. Otwiera je niniejsze wprowadzenie, a następnie Czytelnik poznaje pełny zbiór źródeł pisanych dotyczących dziejów Góry Katedralnej w Chełmie w czasach Daniela Romanowicza, zebranych i opracowanych przez Dariusza Dąbrowskiego (rozd. 2). Najnowsze wyniki badań środowiskowych Góry Katedralnej przedstawia w rozdz. 3 Radosław Dobrowolski, a wyniki badań geofizycznych Wysokiej Górki omawiają w rozdz. 4 Krzysztof Misiewicz i Filip Brzeziński.

Analityczny rozdział 5 autorstwa Tomasza Dzieńkowskiego, Stanisława Gołuba i Wasyla Petryka jest jednym z najobszerniejszych w niniejszej publikacji. Zawiera on wyniki analizy stratygraficznej i opis obiektów nieruchomych udokumentowanych w południowej i północnej części Wysokiej Górki; obejmuje też synchronizację danych stratygraficznych. Na uwagę zasługuje zagadkowy grób mężczyzny odkryty po stronie północnej kulminacji, zaprezentowany w rozdz. 5.3 przez Stanisława Gołuba i Beatę Borowską.



Ryc. 1.11. Spotkania konsultacyjne na Wysokiej Górcze; od lewej: Stanisław Mościcki (wiceprezydent miasta Chełma), Andrzej Buko (kierownik projektu), Markijan Malski (ambasador Ukrainy w Polsce), ks. prałat Tadeusz Kądziołka (proboszcz parafii katedralnej) oraz Stanisław Gołub (kierownik badań terenowych) (fot. T. Dzieńkowski)



Ryc. 1.12. Dokumentowanie odkryć: redaktor Andrzej Sikorski (w zielonej koszuli) z ekipą w trakcie nagrywania filmu dokumentalnego o odkryciach na Górze Katedralnej (fot. S. Gołub)

⁶ W naszych projektach brała udział grupa badaczy z Politechniki Lwowskiej oraz Instytutu Archeologii Ukraińskiej Akademii Nauk pod kierunkiem prof. Mykoli Bevza.



Ryc. 1.13. Polsko-ukraińska współpraca naukowa. Od lewej: dr Jurij Łukomski i prof. Mykoła Bevz (Politechnika Lwowska) w trakcie dyskusji z autorem na temat nowo odkrytego, zagadkowego muru (fot. S. Gołub)

W rozdz. 6 pracy, przygotowanym przez Lucjana Gazdę, Stanisława Gołuba i Mykołę Bevza, prezentowane są surowce mineralne, technologie i cegły stosowane w budownictwie monumentalnym na Wysokiej Górcie. Natomiast w obszernym rozdz. 7, autorstwa Anety Bukowskiej, Jurija Łukomskiego, Mykoli Bevza i Teresy Rodzińskiej-Choraży, Czytelnik znajdzie szczegółowe opisy architektury rezydencji Danielowskiej na Wysokiej Górcie w Chełmie, a także jej faz chronologicznych i funkcji, umieszczone w szerszym kontekście porównawczym.

W rozdz. 8, przygotowanym przez Stanisława Gołuba, Barbarę Chudzińską, Marcina Wołoszyna, Piotra Strzyżę, Arkadiusza Panica i Borysa Paszkiewicza, prezentowane są wyniki analiz grup zabytków ruchomych, podzielonych na ozdoby i przedmioty kultu religijnego, militaria oraz znaleziska monetarne. Z kolei w rozdz.

9 wyniki analiz ceramiki naczyniowej przedstawia Michał Auch.

Modele konsumpcji zwierzęcej w świetle wyników badań archeozoologicznych prezentują w rozdz. 10 Alicja Lasota-Moskalewska, Kamil Niemczak, Joanna Piątkowska-Małecka, Urszula Iwaszczuk i Wim Wouters. Wreszcie w rozdz. 11 piszący te słowa zamieścił podsumowanie wyników przeprowadzonych badań. Całość kończą cztery aneksy dotyczące datowań bezwzględnych metodą radiowęglową (Tomasz Goslar), dendrochronologiczną (Marek Krąpiec) i termoluminescencji (Stanisław Fedorowicz) oraz analizy tkaniny (Łukasz Antosik).

Monografia, którą publikujemy, jest pierwszą interdyscyplinarną pracą dotyczącą dziejów i zabudowy Góry Katedralnej w Chełmie, jaka ukazuje się po ponad stu latach od podjęcia tam badań terenowych. Jest więc nie tylko pełną naukową prezentacją wyników dotychczasowych badań, ale jednocześnie próbą wyznaczenia dalszych możliwych sposobów postępowania przy badaniu i włączaniu do obiegu społecznego unikatowych i złożonych stanowisk archeologicznych, których przykładem jest to prezentowane na stronach niniejszej publikacji.

SUMMARY
WITH
LIST OF CONTENT, LIST OF FIGURES AND LIST OF TABLES

TABLE OF CONTENTS

1. The Cathedral Hill in Chełm: one hundred years of research (<i>Andrzej Buko</i>)	5
2. Written sources for the history of the Cathedral Hill in Chełm (<i>Dariusz Dąbrowski</i>)	15
2.1. Introduction. 2.2. History of the Chełm land, circumstances of establishment of Chełm. 2.3. High Hill and its buildings in the Halych-Volhynian Chronicle. 2.4. The Chronicle remarks on the fate of Daniel's residence after his death. 2.5. High Hill in the late Middle Ages and in the light of Old Polish relations. 2.6. Excavations conducted by Petr Pokryshkin	
3. The Cathedral Hill in Chełm in the light of environmental research (<i>Radosław Dobrowolski</i>)	55
3.1. Purpose, scope and methodology of environmental research. 3.2. Location of the site. 3.3. Hydrological conditions of the Cathedral Hill. 3.4. The results of geological and geomorphological research	
4. Non-invasive research of the palatial complex on the Cathedral Hill in Chełm (<i>Krzysztof Misiewicz, Filip Brzeziński</i>)	69
4.1. Orthophotography and three-dimensional models. 4.2. Geomagnetic prospection. 4.3. Ground penetrating radar research. 4.4. Electromagnetic prospection	
5. Stratigraphic analysis and topographical changes on the High Hill	93
5.1. Stratigraphy of the High Hill in the light of archaeological excavations conducted in the years 2010–2018 (<i>Tomasz Dzieńkowski, Vasyl Petryk</i>)	95
5.1.1. Phase I. First residential complex in the southern part of the High Hill. 5.1.2. Phase II. Construction of a one-part complex. 5.1.3. Utilization of the complex in phases III and IV	
5.2. Chronology and spatial relationships of the Chełm palatial complex (<i>Tomasz Dzieńkowski</i>)	121
5.3. A mysterious episode from the modern period: a man's grave on the north side of the summit (<i>Stanisław Gołub, Beata Borowska</i>)	129
5.3.1. Description of the grave, coffin, and the burial. 5.3.2. Anthropological expertise. 5.3.3. Chronology and conclusions	
6. Raw materials and technologies of the thirteenth-century residential complex on the Cathedral Hill in Chełm (<i>Lucjan Gazda, Stanisław Gołub, Mykola Bevz</i>)	133
6.1. Introduction. 6.2. Stone materials. 6.3. Artificial stones. 6.4. Mortars. 6.5. Conclusions	
7. Architecture of the residence on the High Hill in Chełm	151
7.1. Description of architectural relics: southern part of the High Hill (<i>Aneta Bukowska</i>)	153
7.2. Description of architectural relics: northern part of the High Hill (<i>Jurij Łukomskyi</i>)	173
7.3. Stone blocks and architectural details from excavations on the High Hill (<i>Mykola Bevz</i>)	181
7.4. Interpretation of forms and functions of architectural structures in the light of comparative analyzes (<i>Teresa Rodzińska-Chorąży</i>)	195
7.4.1. Iconography of the High Hill. History and the state of research on the architecture. 7.4.2. Stronghold and residence of Daniel Romanovich: architecture transformations in subsequent phases. 7.4.3. Architectural relics in the light of phases distinguished by Dariusz Dąbrowski: an attempt to synchronize data. 7.4.4. Sources of inspiration for the oldest phase of the residence of Daniel Romanovich in Chełm. 7.4.5. Residence in Chełm in the description of the Halych-Volhynian Chronicle, in the light of excavations, and in a symbolic context	
8. Artefacts	225
8.1. General characteristics of finds (<i>Stanisław Gołub</i>)	227
8.1.1. Introduction. 8.1.2. Flint artefacts, finds dated to prehistory and early phases of the Early Middle Ages. 8.1.3. Finds from the southern and northern parts of the complex. 8.1.4. Conclusions	
8.2. Jewellery – dress accessories – devotional items (<i>Barbara Chudzińska, Marcin Wołoszyn</i>)	235
8.2.1. Jewellery and dress accessories, hand decorations. 8.2.2. Devotional items and other finds related to the sacral sphere. 8.2.3. Conclusions	
8.3. Weaponry from the excavations on the High Hill (<i>Piotr Strzyż</i>)	247
8.3.1. Blade, blunt and ranged weapons. 8.3.2. Arrowheads and bolts. 8.3.3. Other weapon finds. 8.3.4. Conclusions. 8.3.5. Catalogue	
8.4. Coins on the High Hill – economy, worship or politics? (<i>Arkadiusz Panic, Borys Paszkiewicz</i>)	273
8.4.1. General review of coin chronology. 8.4.2. Chronology of coins in the context of archaeological data. 8.4.3. Coins from the High Hill and money circulation. 8.4.4. Systematic catalogue of coins	
9. Pottery finds from the High Hill (<i>Michał Auch</i>)	295
9.1. Introduction. 9.2. Methods of analysis. 9.3. Ware structure of the assemblage. 9.4. Analysis of the assemblage. 9.5. Distribution of selected features of the assemblage. 9.6. Conclusions	
10. Models of animal consumption in the light of the results of archaeozoological research	325
10.1. Animal remains from the southern part of the residential complex on the High Hill in Chełm (<i>Alicja Lasota-Moskalewska, Kamil Niemczak</i>)	327
10.1.1. Methods of analysis. 10.1.2. Research results from the years 2010–2012. 10.1.3. Discussion	

10.2. The remains of mammals and birds from the northern part of the residential complex on the High Hill in Chelm (<i>Joanna Piątkowska-Malecka</i>)	335
10.2.1. Material and methods of analysis. 10.2.2. Results of the archaeozoological analysis. 10.2.3. Meat consumption and the role of animals in the life of builders and inhabitants of the residence on the High Hill in Chelm. 10.2.4. Conclusions	
10.3. Fish in the diet of the residents of the palatial complex on the High Hill in Chelm (<i>Urszula Iwaszczuk, Wim Wouters</i>)	357
10.3.1. Material and methods of analysis. 10.3.2. Results of the analysis. 10.3.3. Discussion and conclusions	
11. Complex episodes in the history of the royal residence on the Cathedral Hill in Chelm: an attempt at summarising the results of interdisciplinary research (<i>Andrzej Buko</i>)	379
Annexes	397
Annex I. Radiocarbon datings from the southern part (<i>Tomasz Goslar</i>)	399
Annex II. Radiocarbon and dendrochronological datings from the northern part (<i>Marek Krąpiec</i>)	401
Annex III. Datings of the brick samples from the northern part of the residential complex on the Cathedral Hill in Chelm (<i>Stanisław Fedorowicz</i>)	403
Annex IV. Fabric remains preserved on parts of the chain mail from the High Hill in Chelm. Raw material and technological analysis (<i>Łukasz Antosik</i>)	407
Literature (<i>collated by Natalia Jędruszczak</i>)	409
Summary with list of Figures and Tables	435

MEDIEVAL PALATIAL COMPLEX ON THE CATHEDRAL HILL IN CHEŁM

(Summary)

1. The Cathedral Hill in Chełm: one hundred years of research

(Andrzej Buko)

The Cathedral Hill (in Polish: Góra Katedralna) in Chełm remains a symbol of splendour of the nearly 1000-year-long history of the town and at the same time constitutes a research enigma. For the last hundred years various scholars tried to establish the original topography of the hill, which in its northern part (in Polish: Wysoka Górką, the High Hill) was supposed to be, according to the *Halych-Volhynian Chronicle*, the location of Prince Danylo Romanovich's residence.

This monograph presents results of research studies that were initiated once more in 2010 and lasted until 2018. Completed field studies show an extremely complicated, and at the same time colourful, image of the hill's history, in which the ducal residence (since 1253 royal residence), built and used most probably between the second decade of 13th century and the second half of the 14th century, remains the key element.

Investigations on Wysoka Górką in Chełm throughout the entire period of their duration were a training ground for testing various excavation and recording methods. At the same time, over the years the site provided placements and practical experience for numerous students and Phd candidates from Poland (primarily from the University of Warsaw) and abroad: from Italy, Spain, China, USA and Ukraine. Furthermore, open days organised on the site played an important educational role for the local community.

This monograph is the first comprehensive study published after over one hundred years since the commencement of excavation work on that site. At the same time, in our opinion it is a starting point that can be used to propose further possible research directions and ways in which such unique and complex multi-strata sites can be presented and explained to the public.

2. Written sources for the history of the Cathedral Hill in Chełm

(Dariusz Dąbrowski)

This paper is made of four parts, the first one of which presents the history of the Chełm Land in the earliest period, i.e. to the end of the first half of the 13th century. It discusses the matter of the reliability of entries concerning the history of Chełm in the 11th century recorded in the chronicle of Jan Długosz, the *Nikon Chronicle* and in the work by Jakub Susza. It was proved beyond doubt that they are unreliable.

The second module is dedicated to deliberations on source information concerning the construction by Danylo Romanovich of a residence in Chełm, using particularly valuable data contained in the *Halych-Volhynian Chronicle* (*The Romanovich Chronicle*). Based on their analysis it was possible to present the chronology of the construction of the Chełm residential complex. Four phases of that foundation can be identified:

1. after 1217/1218 – until 1236 – the presence of a small stronghold – a watchtower;
2. after 1236 – until the winter of 1240/autumn of 1242 – the presence of a heavily fortified stronghold, most probably with a wooden Holy Trinity Orthodox Church that was burnt down by the Tartars during their failed siege, and with other unnamed buildings and houses that must have existed on the site;
3. after the autumn of 1242 – December 1256 – the construction and functioning of Danylo Romanovich's residence comprising a number of buildings enumerated in the *Halych-Volhynian Chronicle* as well as other structures not included in that description. In the latter case we may speculate about the nature of those buildings, as they were associated with the function of the site as the seat of power and the centre of religious worship (the residence of the ruler, the seat of the vladika);
4. after December 1256 – the rebuilding of the complex destroyed by a great fire in a slightly modified shape (perhaps a significant redevelopment of the cathedral, renovation – associated with the redevelopment – of the Orthodox church dedicated to St. John Chrysostom, and perhaps other churches, abandonment of the rebuilding of the tower).

In addition, in this part of the paper the author carried out a thorough analysis of the inventory of the Chełm complex recorded in the *Halych-Volhynian Chronicle*. It was demonstrated that this was the "list of losses" caused by the great fire that destroyed the site, and not a precise description of the entire settlement complex.

It was noted that the term "stone-built" used by the chronicler in fact referred also to brick buildings and not just those actually built of stone. The author of this study also made an attempt at the deciphering of information concerning the architectonic structure and the appearance of individual buildings (Orthodox churches of the Holy

Trinity, St. John Chrysostom, the Orthodox cathedral church dedicated to the Blessed Virgin Mary, the “tower” with a “stone” foundation and upper floors built with timber, the well located next to the said “tower”, and the column crowned with an eagle that stood over one kilometre away from the stronghold).

The third part of the chapter is dedicated to the discussion on data provided in written records concerning the later history of the settlement complex in Chełm, from the 14th century to the 19th century. It has been proven that we are not able to establish in detail the course of the process of degradation of the complex founded by Danylo. However, there is one certain fact. Over several hundred years the area around the former residence of Prince Danylo has been significantly transformed, and Wysoka Górka itself was abandoned for many years and used as a source of building materials.

The last module of this chapter presents archaeological investigations carried out on Wysoka Górka by Petr Pokryshkin and Fedor Korallov in the years 1910–1912 and describes the later history of finds from those excavations that were deposited in the Museum of the Orthodox Church in Chełm. Petr Pokryshkin, a distinguished Russian historian of architecture, during three short (one-month-long) seasons managed to examine the site thoroughly. He found many interesting artefacts. Unfortunately, investigations were stopped for political reasons. What is even worse, the collection of the above-mentioned museum was broken up and scattered as the result of World War I. Many of those finds retrieved during excavations were lost at that time. However, we may not rule out that some masonry elements from Wysoka Górka are still hidden somewhere in Chełm, waiting to be rediscovered.

3. The Cathedral Hill in Chełm in the light of environmental research

(Radosław Dobrowolski)

The main goals designating the scope of environmental research were: (1) determine the geological context and primary morphology of the Cathedral Hill, (2) determine hydrogeological conditions that give the base for further considerations on potential sources of water supply for the medieval princely residence, (3) indication of potential sources of stone building material.

The most important conclusions resulting from the conducted research are as follows:

- (1) The depth of the occurrence of the first aquifer on the Cathedral Hill is about 40–45 m, while it changes over time, depending on precipitation conditions, i.e. in line with long-term wet or dry phases. The maximum heights of the free groundwater table in the discussed location varied from around 185 m a.s.l. during periods of hydrological drought up to approx. 190 m a.s.l. during periods of increased humidity.
- (2) Sediments that compose Wysoka Górka are predominantly embanked grounds, representing various usage-backfill stages associated with the functioning of the settlement complex within it.
- (3) The artificial mound (earthwork) layer of Wysoka Górka is 7.5–8 m thick; it consists of: (a) fine- medium- and coarse clastic debris (chalky and/or glauconitic with an admixture of strictly anthropogenic deposits, including brick debris and fragments of ceramics) – mainly in upper segments, (b) chalky-glauconitic diamicton in clay matrix, (c) fine-fraction chalky-glauconitic rhythmite – mainly in lower segments, (d) organic-mineral deposit – in the middle segment of drill cores.
- (4) Inserts of organic-mineral deposits observed in drill cores on several levels (1.2–1.3 m; 2.0–2.75 m; 3.0–3.60 m) should be treated as an anthropogenic “interlayer”, determining periods of the mound’s stabilization and its temporary use.
- (5) In the central part of Wysoka Górka a backfill of the former water well was identified. This is evidenced by the presence of gravitational deformation mesostructures, which are a record of medium-scale collapsing-sub-sidence destructive processes. The original diameter of the well can be determined at about 2.5–3 m. Its depth could not be established through drilling methods.
- (6) The probable lithostratigraphic border between the Upper Maastrichtian and the Lower Paleocene deposits is determined by a thin (about 2 cm) clay layer in the massive rock ceiling, at the interface with the glauconitite series (iridium layer?); it was drilled in the northern part of Wysoka Górka at 7.80–7.82 m and 8.13–8.15 m.
- (7) It is difficult to unequivocally establish the original thickness of the glauconitite series. It was probably only about 1 m deep (Gazda 2017: 145–146). In most drillings made in the northern part of Wysoka Górka – a meter-long depositional sequence above the assumed Cretaceous/ Paleogene boundary – corresponds to coarse clastic rock debris of bedrocks and glauconite, in places with massive blocks of these rocks.
- (8) The consequence of this interpretation is the adoption of the following conclusions regarding the geological and geomorphological structure of Wysoka Górka:

- (a) the record of the primary sedimentological succession covers only the lower segment with a maximum thickness of approx. 2 m (from the present topographical surface of Wysoka Górká – approx. 228–230 m a.s.l.);
- (b) in its lower part they are massive, relatively hard, strongly fissured Maastrichtian bedrocks. Towards the top, they gradually pass into glauconite sandstones (glauconitites);
- (c) the lithostratigraphic Cretaceous/Paleogene border is determined by a thin (up to 2 cm) clay layering at the level of approx. 230 m a.s.l.;
- (d) although the glauconitite series (approx. 1 m) is stratigraphically related to the Paleocene, the presence of glauconitite interlayer among the Upper Maastrichtian bedrocks (in the lower segment of the examined site) cannot be excluded;
- (e) the elevation of the reconstructed “primary” topographic surface of Wysoka Górká probably had a maximum value of about 228–231 m a.s.l.;
- (f) the volume of anthropogenic material calculated on the basis of results of field GPS surveys and TLS laser scanning (modern terrain topography) as well as archival results and the author’s own geological drillings (reconstructed topography), is about 30,000 m³. The estimated volume of the glauconitite series within Wysoka Górká, treated as the potential building material for the needs of the residential and sacral complex, was determined at approx. 2,000 m³;
- (g) the partial or total exploitation of glauconite sandstone in the southern part of Wysoka Górká seems likely – at the place of the later foundation of the residential-sacral complex; in the northern part of Wysoka Górká probably the natural Paleocene sedimentary succession is preserved and thus the glauconitite series also survived.
- (9) The course of the dry moat surrounding the hill has been identified. Its width was originally around 15–20 m, with an average depth of around 5–6 m.
- (10) The stone raw material used as the building material for the construction of the residential and sacral complex is mostly local rock. Rock blocks identified through research, which constituted the construction material are: Upper Cretaceous bedrocks and chalk, Paleocene glauconitites, and Miocene sand quartz and shell conglomerates.
- (11) Rock blocks used as building materials have a relatively low resistance to destruction. According to the Selby scale (1980), they would fall into the following strength class: (a) moderate – sandstones, shells conglomerates, (c) small – glauconitites, bedrocks, and (c) very small – chalk.

4. Non-invasive research of the palatial complex on the Cathedral Hill in Chelm

(Krzysztof Misiewicz, Filip Brzeziński)

In this chapter we present results of a comprehensive application of non-invasive methods at the Wysoka Górká site. The paper starts with the discussion on the process of preparing documentation in the form of photomaps and 3-dimensional models of the site’s surface. Maps and models were based on aerial photographs and topographic surveys. In the next step, the paper presents maps illustrating the results of the research created on the basis of the obtained documentation, with the subsequent use of geophysical methods. The above-mentioned process not only allowed for the exact localisation of individual work areas, but also facilitated the understanding of hypotheses about the interpretation of their results. Subsequently, the following steps were discussed: the methodology and results of the research obtained through the application of magnetic measurements (using Geometrics 585 G caesium magnetometer), electromagnetic prospecting conducted with the use of the Mala ProEX GPR system with a 500 MHz antenna, and finally the 2D electrical resistivity measurements with the use of electrical vertical sounding techniques.

Results of prospecting with individual methods were compared with results of archaeological excavations. In this context, not only the nature of excavated architectural remains was taken into account, but also their depth, conditions of deposition and the material which they were made from. This allowed to determine the effectiveness of methods used in the detection of archaeological remains residing in multi-layered, complicated stratigraphic systems. It was established that the electrical resistivity method was the most effective under the given conditions. It showed images of subsurface resistivity structures, which were hard to detect with geomagnetic or GPR methods. The interpreted resistivity structures belong to different settlement phases from different periods. The analysis described above was carried out with a special focus on how the results of geophysical surveys were being used to develop an archaeological exploration strategy.

5.1. Stratigraphy of the High Hill in the light of archaeological excavations conducted in the years 2010–2018

(Tomasz Dzieńkowski, Vasyl Petryk)

Wysoka Górka is a stone and earth structure in the form of an artificial mound with relics of medieval architecture, located in the north-western area of the chalk hill called Chełm Hill (in Polish: Góra Chełmska), Castle Hill (in Polish: Góra Zamkowa) or Cathedral Hill (in Polish: Góra Katedralna). The mound has a trapezoid shape with a flat top surface of 40 x 60 m and the height ranging from 7 to 17 m. The modern surface of the mound was formed in the 19th century following an extensive levelling work.

First investigations on this site were carried out in the years 1910–1912 by architect Petr Pokryshkin (Imperial Archaeological Commission in Petersburg) and historian Fedor Korolov (curate of the Museum of the Orthodox Church in Chełm). Further excavations took place between 1966 and 1968 and were carried out by a team of scholars from Krakow (Cracow University of Technology) and Lublin (Maria Curie-Skłodowska University) supervised by Wiktor Zin and Władysław Grabski. The most extensive excavations were carried out in the years 2010–2018 and were led by Andrzej Buko (Institute of Archaeology and Ethnology of the Polish Academy of Sciences). Outcomes of both historical and current excavations became the basis for a detailed stratigraphic analysis of the Wysoka Górka hill.

Excavations carried out to date resulted in the recording of relics of 6 masonry buildings (including structures with documented two phases) labelled with the following letters: A1 – a stone enclosure wall, A – a stone building, B – a quadrangular stone building, the so-called tower, C – a stone building (C1 – bottom part), D – a stone and brick building, (D1 – timber part of the building D), E-F – a stone building.

In total, 813 stratigraphic units were identified, of which early medieval strata were grouped in two phases associated with the construction and use of the complex. Activities linked to the construction work and the use of the site identified as the result of grouping together archaeological units (strata) became the basis for the creation of the stratigraphic matrix of the site.

In phase I, the residential complex comprised two separate parts (southern – S and northern – N) built on a stone platform. The southern part was built in the form of a stone enclosure wall around the earthwork that was approximately 2 m high, the ceiling of which marked the ground surface – a built-up courtyard. At the same time the northern part was formed as a timber and earth, paved mound, also 2 m high, stabilised with a timber structure. The ground level was at the same height as in the southern part. The space was built up with masonry and timber structures (buildings and a well). Both parts of the complex were separated by a strip of a non-developed space, several meters wide. Most probably in the period falling to phase I the moat surrounding the complex was also already dug out, 10 m wide and 4–5 m deep.

In phase II, the planning concept for the site changed and both parts of the complex were joined together by backfilling the space between them and raising the ground level. This was also the time when new buildings were built or existing ones were converted, and the entire site was surrounded with earth and timber ramparts or a palisade.

Next phases (III and IV) were associated with the using of the hill in the late Middle Ages and between the 16th and 20th century. Because the top of the hill was almost completely levelled, only a few pits were recorded, but excavations yielded quite a large number of artefacts. For this reason it is difficult to determine the form and the scale of the settlement from that period and determine how long it actually existed.

5.2. Chronology and spatial relationships of the Chełm palatial complex

(Tomasz Dzieńkowski)

Researchers identified two phases of the functioning of the residential complex, which together lasted slightly over 150 years – from the 13th century to the second half/ the end of the 14th century. The large construction work probably commenced on the site in the 1230s, when two separate parts of the complex – the southern one (which was destroyed) and the northern one – were built. This construction activity is evidenced by the thermoluminescence dating (TL) of six bricks from building D, which most probably falls into the range of 1230s and 1250s (1230±49 AD, 1243±35, 1255±46). Structures built at that time in the northern part of the complex were used for several years and then, following their destruction, the concept of the site's spatial development was changed. Before 1256 all structures were transformed by joining the two parts of the complex into one and creating a raised and strengthened fortified settlement with stone and timber buildings, thus militarising the site. The fire of 1256 destroyed some of the buildings, which was recorded in excavation trenches. The same applies to the widening and rebuilding of the St. John's Orthodox Church (building A) and the rebuilding of the tower (building B) mentioned in the *Chronicle*. The

entire complex remained in that form until the second half or the end of the 14th century. The Prague grosch discovered in building B in a layer associated with the use of that building confirms that it was still occupied in the second half of the 14th century, and thus after the death of Bolesław Jerzy Trojdenowicz (†1340) – who was related to the Romanovich family. The fact that the site was used at that time is confirmed by the finds of 15th-century coins and artefacts in the form of stove tiles and pottery.

Main elements of the residential complex were timber and earth and stone and earth mounds with a diversity of buildings located on top of those structures. The best analogy for this form of residence are *motte* type structures. Such sites, having a residential-cum-defensive character, were built in Western, Northern and Central Eastern Europe between the end of the 10th and the 15th century by kings, princes, knights and bishops.

In the case of Chełm, timber and earth structure was also used in the case of the northern mound (N), although the construction technique is difficult to identify, whereas the southern mound (S), “faced” by stone walls does not have any direct analogies, except for individual structures known to the author of this chapter from France (Montmilar) and England (Goltho). At the same time, a bipartite design of settlement complexes, divided into representational and service compounds, was rather commonly used on sites known from the territory of the Netherlands and Germany. Changes in the II phase of the complex were associated with the raising of the ground level and its redevelopment, while the key element of the site remained the centrally situated tower-donjon, like in the case of the majority of *motte* type sites.

5.3. A mysterious episode from the modern period: a man’s grave on the north side of the summit

(Stanisław Gołub, Beata Borowska)

In 2017, during excavation work in trench 46, at the depth of around 200 cm from the ground surface archaeologists discovered a mysterious grave number 1 with a metal coffin clad with moulded boards, which contained a burial that partly damaged walls of buildings D, F and the oldest stratigraphic units.

Bones belonged to a man over 45–55 years old (*maturus/senilis*). His stature reconstructed based on measurements of long bones was approximately 164–168 cm. There were no traces of grave goods or residues of clothes. On the left side of the body, near the ribs, there was a corked glass ampoule – dispenser, which still contained clear fluid. It was established that in its top part the skull was cut off for medical reasons (?) post mortem and also bore evidence of many dental procedures performed over the man’s lifetime, including a bridge – splint on four teeth and a dental crown made from gold, and many dental fillings.

The burial did not follow established religious principles, was located outside a necropolis and in a different orientation. The grave described here is a very atypical find and it is hard to find analogies for it. Based on available stratigraphic data it was assumed that the man was buried in the 19th century – at the beginning of the 20th century.

6. Raw materials and technologies of the thirteenth-century residential complex on the Cathedral Hill in Chełm

(Lucjan Gazda, Stanisław Gołub, Mykola Bevz)

The use of white and green stone in architectonic decoration of the St. John Chrysostom Orthodox Church on Wysoka Górka in Chełm, described by the Ruthenian chronicler, was not accidental. It was a technical and artistic activity aimed at achieving an ideological result. The use of that green and white symbolism in architecture corresponds with the officially established canon of colours and their meanings in liturgy. Architectonic decoration that merged the green colour of Chełm glauconite with the white hue of Halych stone (alabaster and white biodetritus limestone) placed Chełm closer to the Byzantine and Romanesque Europe, which Danylo knew from direct and indirect contacts.

However, white and green materials used during the construction of the Chełm architectural complex did not survive long. Alabaster proved to be non-resistant to high temperatures during the fire that destroyed buildings on the Cathedral Hill in 1256, while glauconite was not weatherproof, and also succumbed to fire.

Due to the above-mentioned flaws of building materials, builders experimented with the petrification of chalk, a soft rock commonly available in Chełm. The 13th century marks the beginning of an intensive use of that raw material. Until recently, white materials found during archaeological excavations were treated as pottery. However, a more thorough analysis shows that they are chalk-based and not made from white clays.

Archaeologists recorded the presence of entire fragments and broken architectonic details made from green and multicolour material, which also could be the result of a ceramic-making process, and in light of studies

carried out so far, they are very similar to modern-day materials of the geopolymer type, although it is difficult to establish, to what extent they were actually used. However, this innovativeness noticed in archaeological record is the evidence of the significant knowledge and skills of builders at that time. New buildings were constructed on the orders of Danylo Romanovich with the use of classic red brick, which was also very innovative in architecture of that period in this part of Europe. Archaeologists find also other evidence of experimenting with materials and technologies in the case of mortars, plaster coatings, glass and glazing, dyes and pigments, and metals.

Builders used a very non-uniform handmade brick (the so-called “finger” brick, in Polish: *palcówka*) in different colours, which was sporadically glazed. TL dating results indicate a very early dating of those bricks – the first half of the 13th century.

Stones and brick used in buildings were bound together with sand and lime mortars. Concurrently with classic white mortars builders used pink mortars made on the basis of grounded redware pottery, which in effect created a very durable and water resistant material, and green mortars based on scraps of glauconite, which probably were used for decorative plastering or filling in gaps in stone architectonic elements made from glauconite.

7.1. Description of architectural relics: southern part of the High Hill

(Aneta Bukowska)

The survey of relics of walls focuses on their recording and description and constitutes the basis for an analysis of stonework bonds and their spatial and chronological correlation with stratigraphic data, as discussed in next chapters of this monograph.

During exploration archaeologists exposed well-preserved relics of a rectangular perimeter and three buildings situated inside the compound: and oriented two-part building A located parallel to the longer side of the enclosure in its eastern part. Situated on the same axis as building A, there were building C in the western part and building B with a rectangular plan, situated on the northern line of the rectangular perimeter. Surviving elements of enclosure walls (A1) of the residence constitute well-recognized sections of the western, northern and southern wall and to a lesser degree – eastern wall. The remnant of the northern enclosure wall is partly covered by a commemorative artificial mound. A well-preserved section is the wall with remains of the north-eastern corner and the group of relics of aboveground parts – probably an entrance or a driveway. The eastern wall did not survive along its entire length, except for a small section in its northern part and the relic of the north-eastern corner. The shorter side of the quadrangular enclosure reaches 22.5 m, while its longer side 33 m. Building B was recognised to a lesser extent. Remains of buildings A and C survived only in foundation parts and are characterised by different degrees of preservation and exploration.

7.2. Description of architectural relics: northern part of the High Hill

(Jurij Łukomski)

Relics of walls, unearthed in the northern part of Wysoka Górka in the years 2013–2017 were tentatively assigned to three buildings – D, E and F, which might have functioned simultaneously or one after another. All were interpreted as remains of buildings with masonry work in bottom parts – built with blocks of glauconite bound with mortar in the *opus emplectum* technique, and in their upper parts – with Romanesque brick and glauconite. Based on results of construction, technical, technological and stratigraphic analyses researchers drew the following conclusions.

Recorded for the period preceding the construction of masonry buildings was one archaeological layer associated with the use of the site, which was covered with a layer of burnt material – this may indicate the first phase of settlement with timber buildings. The ceiling of the charcoal layer included fragments of the hand-made early Romanesque “finger” brick, which correspond with the second phase of the settlement on Wysoka Górka. In the next phase, which is associated with the presence of timber buildings in the northern part of the hill, buildings F-E were constructed. They are relics of a building designed on a quadrangular plan, with the dimensions of 6.1 x 6.45 m. Building work was probably interrupted by fire, as a result of which the initial construction was abandoned and another building was erected in its place – labelled as D. Comparing to the previous, unfinished, structure it was a bit smaller, on a quadrangular plan with the length of the external side of 5.5 m. Walls of the older unfinished building (E-F) were treated as a retaining wall for the new structure. In its bottom part builders used massive joints in the form of a log-house structure to give walls maximum durability. Building D had one floor and the height of walls of at least 6 m. It was probably covered with a cone-shaped timber roof clad with sheets of metal. Based on its stylistic features, architectonic decoration, applied technologies and artefacts from that context, building D may be identified as secular residential building or a religious building.

It should be noted that some technological and building solutions, and in particular the placing of the building on an earthwork without any foundations, not respecting the rules for bonding together blocks between layers and sections of walls, may indicate a lack of experience or construction skills or possibly searching for innovative solutions and experimenting by the builders of the residence at that time.

7.3. Stone blocks and architectural details from excavations on the High Hill

(Mykola Bevz)

During exploration works on Wysoka Górka in Chełm archaeologists discovered a great number of carved glauconite and limestone architectonic details, the use of which emphasizes the extremely rich decoration of lay and religious buildings of the residence. First details were discovered by Petr Pokryshkin in a rather large number of approximately 100 fragments. However, they have not been analysed and published. The most recent archaeological investigations carried out on Wysoka Górka yielded over 30 more profiled and carved fragments of stone details.

This chapter presents selected ashlar and architectonic details, which include profiled elements of pillars and portals, a cantilever of vault ribs or archivolt from an arch of a portal, as well as window and door frames.

Architectonic details discovered on the site can be divided into several groups. The largest group consists of profiled corner blocks with narrow half-columns placed on an emphasized border. In the next group are partly preserved, richly profiled blocks with a concave quarter-circle moulding in one corner and a half-column in the other, with two convex borders. Another group is made of arch-shaped blocks with a concave quarter-circle moulding. Those blocks most probably were parts of an archivolt that crowned a semi-circular portal, or a group of archivolt in a stepped portal.

Particularly interesting is a corner fragment of a carved capital made of white stone. Probably this detail was a part of a cornice of a pillar. Another interesting find is also a column carved out from sandstone. Its presence is the proof that there was some sort of a vaulting structure, whereas remains of round flat blocks may be bases of columns.

The analysis of forms and details allows us to draw conclusions about their classification as fragments from different parts of Chełm buildings and the late Romanesque or even transitional stylistic character in terms of architectonic decoration, as evidenced by well-preserved elements and types of moulding.

7.4. Interpretation of forms and functions of architectural structures in the light of comparative analyzes

(Teresa Rodzińska-Choraży)

For many years, the state of research on archaeological remains on Wysoka Górka in academic publications was very limited - successive researchers confirmed the presence of relics of masonry structures and formed unclear hypotheses about the presumed form of King Danylo's palace. It was not until the archaeological excavations carried out in the years 2010-18 when much valuable data was finally obtained. Confrontation of that information with records entered in the *Halych-Volhynian Chronicle* resulted in a new image of the transformations of the architecture of the Chełm stronghold in the 13th century. Unearthed relics of masonry buildings come from three phases, although their poor state of preservation makes it difficult to create theoretical reconstructions of forms for individual buildings and renders any such proposals only hypothetical. In the oldest phase, which can be dated to the years 1218–1242, work commenced on the building of a rectangular compound with the area of 700 m² on the southern part of the hill. That complex (A1) probably included a stone defensive wall and two buildings located on one axis in a regular-shape courtyard (buildings A and C). In the southern part of the enclosure wall archaeologists unearthed remains of a monumental gate. Building C was most probably designed as a tower house castle, and building A was identified as the St. John Chrysostom Orthodox Church described in the chronicle. At that time, in the northern part of the hill builders placed a small square stone and brick building D with sides around 5 meters long.

The rectangular design of the residence had not been completed – probably as a result of a construction disaster and the collapse of the eastern wall. For that reason, in the second phase buildings were radically redesigned, whereas the original compound A1 was demolished and the stronghold was surrounded with timber and earth ramparts. A stone and timber tower B was built in the central point of the stronghold, while the Orthodox church still functioned in the

southern part of the settlement. In phase III, following the fire in the stronghold in 1256, foundations of the tower were strengthened and the church was rebuilt. Other buildings were timber structures and their forms are not clearly visible in archaeological record.

For the historian of architecture, the most interesting element is the complex from phase I. Compared to residential and defensive architecture in Central Europe of the first half of the 13th century – the design of a regular, quadrangular courtyard surrounded with walls and with two prominent buildings placed in its centre along the same axis – is a unique concept. Its author could only use as a reference the design of the royal seat in Óbuda, which was the only example of a regular quadrangle with a tower gate, a chapel and a hall and an internal courtyard. Considering often and close contacts between Danylo Romanovich and the Hungarian court, we may suspect that the castle in Óbuda could have been the source of inspiration for the ambitious young ruler. Such designs were not known at that time in Kiev Rus', the Halych-Volhynian Rus' or in the Piast or Czech territory. They became more common only in the second half of the 13th century, and in the case of territories north of the Carpathian Mountains – in the last quarter of the 13th century Teutonic Knights started to build quadrangular masonry castles in the former Piast lands. It is worth noting that transformations of the residence in Chełm took a course that was contrary to the trend observed for the Central European residential and defensive architecture in the 12th century and the first half of the 13th century. While the process of the transformation of castles surrounded with earth and timber ramparts into castles surrounded by masonry fortifications is clearly recognised, in Chełm the avant-garde design of the residence surrounded with a defensive wall was replaced with – although larger – earth and timber fortifications.

The description of Chełm in the chronicle uses references to the Old Testament and the symbolic, metaphysical meaning of light. Its author presented the appearance of Chełm in such a way as to create the image of Danylo as the ruler – the founder of the new capital (in the likeness of Constantine), the builder of a new palace and church (in the likeness of Salomon) and the one whose power and might radiated into the territory under his rule. The architecture presented in this description is thus rooted not only in a long literary tradition but also in the theology of power.

8.1. General characteristics of finds

(Stanisław Gołub)

During excavation works carried out in the years 2010–2016 archaeologists discovered a great number of finds (92,435 artefacts). Due to that number, for the purpose of this monograph finds from the early Middle Ages were selected for further discussion based on their importance for chronological findings. The selected group included ornaments and religious artefacts, weapon and coins, which were characterised in detail in separate chapters in this publication.

Excavations also yielded 47 flint finds, which were classified as prehistoric artefacts. In the northern part of the site archaeologists discovered several flint objects made from local Rejowiec flint dated to the Bronze Age. The remaining artefacts, also made from the said local variety (Rejowiec) of flint, can be associated with the use of the site in the early medieval period.

Discoveries of prehistoric pottery and flint finds, although not that numerous, suggest the presence of a settlement activity or a single grave / structure from the Bronze Age on the original mound or in its vicinity. A small number of pottery from the older phase of the early Middle Ages was also recorded. For this reason, it is possible that Wysoka Górka was occupied prior to the construction of the artificial platform.

In the total number of 92,435 mass finds and special finds that came from the excavations, 31,108 specimens (33.7%) were discovered in the southern part of the hill and 61,327 specimens (66.3%) came from its northern side. The number of finds from the northern part of Wysoka Górka is visibly much higher – particularly in two categories associated with consumption and the use of the site: pottery and animal bones and (to a smaller degree) in the case of metal finds, glass finds and coins.

We may suspect that the northern part of the hill was the area where permanent settlement was concentrated – an economic base for the court, mostly occupied by timber buildings, although in one phase also with a stone, brick and timber “residence” (D, E, F).

It should be noted that in the area of the said residence archaeologists found, apart from architectonic details, a huge number of window glass and stained glass, and the only gold-plated glass cube (tessera) from an unknown mosaic (?), a fragment of a bronze bell (?), painted metal sheets and tinted plaster. This was also where some special finds were discovered: a small steatite icon, silver rings, a golden ring, a silver mark, etc. Furthermore, this group included a very unique artefact – a “Mongolian” ornamented mirror made of tin bronze dated to the 13th century.

8.2. Jewellery – dress accessories – devotional items

(Barbara Chudzińska, Marcin Wołoszyn)

From the latest excavations carried out on Wysoka Górka in Chełm comes a large number of artefacts, of which a very important group are dress accessories and jewellery. This study focuses on 16 finds represented by head (an earring, a temple ring), neck (a pendant, a bead) or hand ornaments (rings) and dress accessories. A separate category of finds discussed here are devotional items – crosses-pendants made from various materials (4 specimens). Artefacts that may be associated with the sacrum sphere are two miniature swords that were parts of book clasps. Other miscellaneous finds that were studied in more detail included, *inter alia*, a bronze chain and a fragment of a cosmetic spoon made of ivory.

In the group of dress accessories one of the items that stood out was a piece of a silver earring. Similar finds known from the territory of Poland come, among others, from Przemyśl, but primarily from the so-called hoards of the IV chronological group according to the classification of G.F. Korzuchina. On that basis that find can be dated to the first half of the 13th century. Another fragment of a temple ring may be dated only generally to the 11th–13th century. The same applies to a bell-shaped pendant (although in this case the probable dating range extends even further to the 14th century).

An interesting group of artefacts are rings (in total, archaeologists found 7 such items). In addition to plain non-ornamented tape-shaped rings, there were rings with bezels (signet rings?). In three cases there are probably letters or runes, and one ring bears the sign of the Rurikids. Another ring (of which only the bezel survives) was decorated with an image of a bird. This find may be associated with the group of the so-called boyars' rings and can be dated to the 14th century.

Devotional items included three metal cross pendants and a cross made from the red stone (but not from the so-called Ovruch slate). They are broadly dated to the 11th–13th century and one cross comes from the 13th–14th century.

Special finds that are rarely discovered in Poland are miniature swords, which have strict analogies in Kiev and which are believed to be parts of book clasps. A very unique artefact is a small icon made of steatite, which survived only partially. It not only provides more insight to our knowledge about medieval Chełm, but also the fact that it was discovered during archaeological excavations means that it has a tremendous importance for further studies on the history of the Byzantine art.

Prior discoveries made in Chełm, such as finds of templates for making cauldrons or significant amounts of glass bracelets were already proofs of the great significance of that settlement centre. Archaeological finds presented in this chapter include other unique artefacts, such as the silver temple ring, a golden ring, a ring decorated with an image of a bird or parts of book clasp mechanism.

It should be noted, however, that only several of the above-mentioned finds have the value of independent dating indicators, as generally artefacts analysed in this chapter are dated very broadly to the period from the 11th to the 14th century.

8.3. Weaponry from the excavations on the High Hill

(Piotr Strzyż)

Excavations carried out on Wysoka Górka in Chełm provided a small but very interesting assemblage of medieval weaponry. Particularly interesting finds included an iron blade of a *Hauswehre* sword discovered in a trench located near the tower – building B. The sword from Wysoka Górka was found in a layer that also contained a coin – a Prague grosch of Charles IV of the Luxembourg dynasty from the years 1346–1378. Thus, that artefact can be dated to the second half of the 14th century and currently it is the oldest *Hauswehre* sword with a confirmed dating from the territory of Poland.

In the group of military finds from the excavations on Wysoka Górka in Chełm the category with the greatest number of specimens are remains of ranged weapon. There are 28 specimens in total, which can be divided into arrowheads and crossbow bolt heads. Arrowheads, which all have tangs, are dominated by forms that are usually associated with tribes originating from the territory of eastern Europe and Asia. That group can be divided into specimens with flat bodies – broadheads with a lenticular or flattened cross-section, broadheads with angular cross-section – diamond-shaped or square, and bodkin points for piercing armour. There were two arrowheads with tangs that stood out – specimens made of antler and bone. Such finds are generally more rare than metal arrowheads, although they are also associated with nomadic tribes. Both specimens are very carefully made, with well-polished surfaces. Arrowheads with tangs are dated to the 13th century.

Crossbow bolt heads are represented by the total of 13 specimens, of which two had tangs and the rest sockets. Such forms are very often recorded both in the area of eastern Poland and modern-day western Ukraine (medieval Rus') from the 13th century.

Distinctive elements of armament from Wysoka Górka in Chełm are fragments of chain mail discovered in the south-eastern part of the hill. These are three larger lumps and three individual links. The recorded diameter of links is usually 9–10 mm, and only in individual cases 12–13 mm. They were made mainly from wire 2 mm thick, less often – 1 mm thick. They all came from archaeological context dated to the 13th and 14th centuries. Unfortunately, these finds are mostly heavily burnt, thus, it is difficult to establish the manner in which individual links were joined together, although it seems that they were not riveted but rather had both ends hammered down or welded. What is interesting – several fragments of chain mail had on them lumps of melted copper or bronze, which may be the evidence that those hauberks had also links made from those metals. Other fragments had residues of textiles – fabric garments worn underneath shirts of mail.

A rather large category of finds are also elements of horse riding equipment and horse tack, represented by three rather badly damaged spurs, two shoulders of spurs with mounts, a rosette, a buckle and fittings for fastening thongs to spur mounts and a half of a bit. These are mostly artefacts that based on both the stratigraphy of the site and analogies can be dated to the 14th century.

Finally, the collection of weapon elements includes two stone balls, which possibly can be the evidence of using projectile-launching weapon or firearms.

When analysing concentrations of the above-mentioned finds it should be primarily noted that most of them were discovered in trenches located in the northern part of the hill, where almost all arrowheads and crossbow bolt heads. The same applies to chain mail fragments, horse equipment and horse tack. In the southern part of Wysoka Górka archaeologists discovered only the *Hauswehre* sword and one crossbow bolt head. Thus, it seems that any potential attempts aimed at the capturing of the complex in both the 13th and the 14th century concentrated in its northern part.

8.4. Coins on the High Hill – economy, worship or politics?

(Arkadiusz Panic, Borys Paszkiewicz)

A total of 104 coins were found during excavation works on Wysoka Górka hill. From the 14th century, there are eight of them, 29 from the 15th century, five from the 16th century, 25 from the 17th century, six from the 18th century up to 1815, twelve from the subsequent decades until 1914, and nineteen from the years 1923–1962. The continuity in the chronology of coins discovered on Wysoka Górka starts in the second quarter of the 14th century and breaks with the coins from 1527. Later, we have two Polish coins from 1582 and 1584, and the next group begins with a coin from 1652. So we neither have any coins from the period characterised by the plentifulness of national coinage under King Sigismund III, nor from almost the entire next period of the imported shilling inflation from the second quarter and the middle of the 17th century.

In the 13th century, the economy of Rus' did not use coins. These began to flow into this country from the West (Bohemian groschen) and the East (silver and copper coins of the Ulus of Jochi) only in the first half of the 14th century. Such coins are also the oldest ones on the discussed site. Prague groschen of John the Blind and Charles I (IV) from Chełm were not clipped, unlike most of coins of this type found in Rus'. Perhaps the custom of clipping groschen did not reach Chełm or emerged later. Jochid coins discovered in Chełm are the westernmost finds of such coinage and together with several other specimens they form a small concentration in this region. Probably both sorts of coins were associated with the role of Chełm as the centre of political power. The find of the Hungarian penny of King Louis I is exceptional and perhaps related to his military activities against Lithuania. The total lack of coins of Ruthenia or Lithuanian principalities from the end of the 14th century in Chełm is noteworthy. This probably testifies that the Chełm area had been covered early by the circulation of Polish coinage. Polish coins occur here already in the 1370s.

Later coins from excavations are typical relics of coinage circulation – mainly small coinage – in the territory of the Kingdom of Poland, and then of the Commonwealth of Poland. We also observe small coins from the period of the Partitions of Poland, i.e. from the end of the 18th century and later. These coins find their analogies among coins discovered in the city of Chełm. Despite the mysterious gaps in their chronology, we associate their influx to Wysoka Górka primarily with pilgrimages and religious rituals associated with the Chełm cathedral and the Marian image.

Coins from Wysoka Górka are valuable evidence of local and regional history, and – at least in the earlier period – the political history of Poland and Rus'. Together with other coin finds from the Cathedral Hill, the city of Chełm and its surroundings, they make up a multi-faceted picture of economic life, but also – to some extent – of the spiritual culture.

9. Pottery finds from the High Hill

(Michał Auch)

Based on the analysis of a large pottery assemblage – comprising over fifty thousand specimens – from Wysoka Górka it was possible to draw preliminary conclusions with regard to transformations in pottery production and their correlation with the identified phases of settlement in that area. A small number of artefacts made without a potter's wheel and partly turned did not confirm the thesis about the permanent settlement on the investigated site prior to the construction of the residential and sacral complex – by Prince Danylo Romanovich in the first half of the 13th century. In the first phase, falling to the 1240s and 1250s, the dominating element of the assemblage is brownware, made from ferrous clay, often painted with white slip, with a characteristic rim formed in the shape of a roll. It has many analogies in the vast area of Rus' and on sites of the Polish-Ruthenian border. In addition to the above-mentioned brownware pots, an important element of the assemblage are also white vessels (I), which probably were produced from imported kaolinite clays. In the above-mentioned phase this raw material was also used to make the majority of glazed vessels and floor tiles. Technological properties and the structure of the assemblage of glazed vessels, which is dominated by tableware, indicate links to Ruthenian-Byzantine pottery known from Kiev and main Ruthenian centres. This is also where large numbers of amphorae came from to Chełm.

Following the construction disaster, and perhaps also after the great fire that destroyed the princely residence in 1256, significant transformations took place. In the II phase the only group is brownware, which constitutes mass finds in layers associated with the newly-built tower in the central part of the complex. Production of kitchenware from white clay and glazed pottery stops, and in the case of floor tiles potters start using increasingly more often ferrous clays. Over time also the size and the thickness of floor tiles changes. The range of vessel forms extends – other types of kitchenware and tableware appear alongside cooking pots, such as jugs, bowls, plates and lids, which fill in the gap left by glazed pottery that was used previously. The largest group of pots also undergoes significant modifications in terms of their form, while most specimens were covered with white slip. This method of decorating also shows some differences comparing to pottery from phase I. Decoration that was recorded particularly often was created by removing a layer of white slip with a stylus, which resembles the *sgraffito* technique known from wall painting. In this group the percentage of slipped specimens (almost 80%) is not only the highest in the entire territory of Poland but also unique in the case of the territory of Rus'.

In the youngest stages of phase II (second half of the 14th century) appear a few brownware, greyware, red ware and white (II) specimens, which have rims in the form of thickened lips or half-rolls, formed in a manner typical for the late Middle Ages.

In phase III, dated to the end of 14th century and the 15th century such vessels are already the dominating type, which may indicate that Wysoka Górka was occupied in the 15th and 16th centuries despite the lack of any record of relics of buildings, which perhaps were destroyed by the subsequent levelling. Apart from late medieval and early modern vessels, from that phase comes also a relatively large assemblage of floor tiles made from ferrous, white and mixed clays, as well as mass finds in the form of vessel stove-tiles and slightly less often panel tiles. Pottery from phase IV associated with the 19th- and 20th-century levelling, construction of the Orthodox church and the artificial mound, is very mixed and apart from a few fragments of pottery vessels and thin floor tiles made of red clay may be associated with the decoration of that church, now already non-existing.

10.1. Animal remains from the southern part of the residential complex on the High Hill in Chełm

(Alicja Lasota-Moskalewska, Kamil Niemczak)

Animal remains from archaeological excavations constituted a very large assemblage of finds, i.e. 7624 bone fragments and teeth. In this case the basis for drawing conclusions was the species or zoological composition or the anatomical composition of the remains.

In the first consumption model (13th century) cattle remains constitute the dominating element of the assemblage, while bones of pig and small ruminants have similar proportions. This is a typical representation of animal husbandry in the early medieval eastern Poland. Hunting did not play a significant role – it was limited to catching whatever game was available in local forests. Bird and fish meat was consumed only in small amounts.

The second model (13th–14th century) is different. In this case bones were left by people who primarily ate meat of small ruminants, and birds and fish. According to the anatomical distribution, the preferred meat came from animal torsos, and in the 14th century also included ham from cattle and small ruminants. Such model indicates a nomadic

origin of the consumers, who once came from steppe or forest steppe territory. If the biodiversity of diet can be treated as a symptom of wealth, then the most wealthy group were consumers who left animal remains in the 14th century.

10.2. The remains of mammals and birds from the northern part of the residential complex on the High Hill in Chełm

(Joanna Piątkowska-Małecka)

The aim of this paper is to present results of the archaeozoological analysis of bone remains of mammals and birds discovered in 2015 during excavations carried out in the northern part of the residential and sacral structure on the Cathedral Hill in Chełm. Osteological material, consisting of typical post-consumer leftovers, came mainly from cultural layers dated to the second phase (the 1240s and 1250s) and, to a much smaller extent, the third phase (first half of the 14th century) of the construction and use of the Wysoka Górka complex.

The presence of mammals bones and domesticated birds was recorded in archaeological layers from both chronological phases, while remains of wild animals were rare finds the percentage of which decreased over time from almost 9.0% to less than 1.5%. Wild mammals were represented mainly by remains of wild boar, deer, roe deer and hare, less often by bison or wisent, elk, bear and marten. Bones of birds were dominated by black grouse, capercaillie and crane, which much rarer remains of partridge, hazel grouse and marsh harrier, which could have been used as a bird of prey for hunting. Wild animals provided meat for consumption and other raw materials, such as: bone, antlers, skins and furs, and some of them, such as bear and crane, could have been tamed and used intravenously.

Domesticated animals played the leading role in the diet and economy. The structure of breeding has changed over time; the share of sheep and goat remains (from 40% to 25%) and poultry decreased, while the percentage of pig remains increased (from 22% to 30%). The share of cattle bone in both chronological phases was at a similar level of around 40%. A small number of remains belonged to horse and dog.

The slaughtering of livestock took place outside the residence, and pre-divided animal carcasses were delivered to the settlement. There was an inclination towards consumption of meat from valuable consumer parts of the carcass (closer sections of both limbs and torso), which came primarily from animals killed at a young age. Breeding, aimed at satisfying needs of the inhabitants of the residence, was focused on producing meat for consumption, and not for the use of living animals. Cattle belonged to the *Bos Taurus brachyceros* form and were of low and medium body size. Sheep represented a small form, similar to mouflon, and pigs varied in size. Poultry were dominated by bones of a house-sized chicken, with some specimens indicating castration. Remains of geese and ducks were less frequent.

10.3. Fish in the diet of the residents of the palatial complex on the High Hill in Chełm

(Urszula Iwaszczuk, Wim Wouters)

The aim of the research was the analysis of fish remains excavated from the northern part of the residential complex in Chełm-Wysoka Górka in seasons 2012 and 2015. The assemblage consisted of 2809 bone fragments, scutes and scales. The state of preservation of fish remains was relatively good. The bone material was divided into two groups: the first group contained fish bones from excavations carried on in the 2012 season (chronology: second half of 13th century/beginning of 14th century), the second group consisted of remains discovered in the 2015 season (chronology: 1240–1256 AD). In the case of the first group, two thirds of fish bones came from pike (*Esox lucius* L.). The inhabitants of the residential complex consumed mostly middle-sized pikes with SL between 40 and 50 cm. Some of pike remains from the oromandibular region bore atypical marks of transversal cutting.

The second most common finds were remains of cyprinids (Cyprinidae). A much smaller number of bone fragments belonged to percids, catfish (*Silurus glanis* L.) and sturgeon (Acipenseridae). In the second group dominated cartilage and bone elements of sturgeon, which is an exceptional phenomenon for materials from early medieval Polish sites. It was possible to distinguish bones of exclusively – one species of sturgeon (*Acipenser oxyrinchus* Mitchell, 1815). Some remains bore post-consumption marks, such as marks left during the dividing of the carcass and preparing meat. It is probable that these big fish specimens were caught in the Bug River in a distance of less than 30 kilometres away from Chełm or even in a further region, perhaps in the middle or lower course of the Bug or Vistula Rivers. Quite a large number of fish bones came also from cyprinids. Some remains of carp (*Cyprinus carpio* L.) were identified in this group. It was possible to estimate the size of two individuals; one had a body length between 45 and 50 cm SL, and the other one was bigger, with SL between 55 and 60 cm. Cyprinid bones bore very few post-consumption marks.

Bones of catfish (Percidae) were very few in this group and they came from individuals with body length of 70–130 cm SL. Additionally, there was also a bone of a big catfish with SL about 230 cm.

Only a few bones of salmonids were found in the material from the 2015 season. The assemblage excavated in Chełm-Wysoka Górka indicates the importance of fish in the diet of the inhabitants of that sacral-residential complex. The high rank of this place was also reflected in the osteological material: people consumed mostly big fish, while such specimens were more difficult to catch and in some cases probably imported from further regions. Their presence in Chełm could be a result of trade or other kinds of exchange as well as gifts for the prince's court. The chronology of these finds is very early for the Polish territory and these were the first bones from the archaeological contexts with a such precise dating.

11. Complex episodes in the history of the royal residence on the Cathedral Hill in Chełm: an attempt at summarising the results of interdisciplinary research

(Andrzej Buko)

The history of architecture and use of Wysoka Górka in Chełm is an image of constant changes in the spatial development of that site. The investigated residential complex during less than forty years of its history was an almost permanent construction site or was constantly undergoing significant redevelopments. At the same time the process of execution and completion of the development project was spread over time and space, with a number of dramatic episodes that took place in that period. Most probably at the beginning of the 1240s (possibly even a few years before that date) first works associated with the construction of the residence commenced in the area of the modern-day Wysoka Górka.

Based on research completed so far, it is possible to identify at least two phases of construction and redevelopment of the residential complex, which were accompanied by major topographical transformations of the site. Buildings were constructed on a specially prepared and strengthened stone and earth and stone mound or embankment. In phase I, the most important part of the site was the southern part of the hill.

The original residence consisted of enclosure walls with a gate and a courtyard built-up with most probably two buildings, of which one (C) possibly was a tower house castle and the second one (A), with a floor plan close to a rectangle, was a religious building. Both were located in the middle of the courtyard on the same axis. However, this project was never completed, most probably because there was a construction disaster at the building stage, as a result of which the eastern wall of the residential complex was damaged and ultimately collapsed and fell down the slope.

In light of this event the focal point of the development project was moved to the northern part of the hill – i.e. the area that was previously the construction camp and storage site. The northern compound comprised a rectangular building with a stone base and brick walls, which became the centre of the new development, and timber buildings situated to the west and to the south of the said masonry structure. A new element was the tower built in this phase. That building, a with stone base and upper floors built with timber (B), was put in the centre of the elevated area and became the dominating point in the landscape of the residential complex and at the same time defined its axis of symmetry. A permanent part of the compound's architecture remained timber buildings, adequately remodelled, remains of which were recorded during excavation works.

In the discussed phase II the entire area of Wysoka Górka was occupied by residential buildings. There are visible references to a *la motte* type of fortress, coupled with an innovative at that time in Europe regular line of defensive walls of the entire complex. Those elements and many other features indicate the important (Byzantine?) composition of Prince Danylo' court. This stage of development of the residential complex in Chełm can be linked to the period between 1242 and the beginning of December 1256, when a great fire destroyed most of the site - an event that is mentioned in the *Halych-Volhynian Chronicle*.

Archaeological excavations resulted in many discoveries that are the evidence of above-standard skills of builders and the elite status of inhabitants of the Chełm residence. Group I consists of building materials identified as a result of archaeological investigations, which are a gold mine of information about the quality and innovativeness of raw materials used during construction works. The architectural décor of buildings on Wysoka Górka put Chełm closer to artistic and architectural trends of the Byzantine and Romanesque Europe.

A separate group constitutes data confirming the high social status of inhabitants of the Wysoka Górka complex. This includes high class, often imported objects, personal belongings and high quality devotional items. Other finds (e.g. weaponry and elements of horse tack) point towards knightly status of some of the residents.

Another indicator of the social status is also diet. In this respect studies showed that people on Wysoka Górka consumed mainly selected parts of animal torsos and meat that came mainly from young animals. The high status of

Wysoka Górka inhabitants is also confirmed by ichthyological material. The most common finds of fish remains are bones of the most valued species. Furthermore, finds indicate that fish consumed by residents of Wysoka Górka were predominantly large specimens, i.e. those harder to catch. Finds from Chełm are also one of the earliest known proofs of the interest in carp known from the territory of Poland.

Another evidence indicating the high status of people who lived on Wysoka Górka is the pottery found in archaeological contexts. In this case, technological and stylistic features of clay vessels were most probably brought by highly-skilled foreign craftsmen who came to Chełm. The pottery-making model that emerged on the discussed site in many terms is unique for Polish lands. Its specific feature is the presence already in phase I of many vessels made from white clays, in particular luxury glazed and slipped vessels.

Further history and stages of development of the top of Wysoka Górka hill in the modern period were established only to a limited degree. This is caused by the numerous and significant instances of levelling of the ground, which are mentioned many times in this monograph and which resulted in the complete destruction of the stratigraphy of the hill from the late Middle Ages and the modern period.

In the final part of the publication the author calls for further studies to be carried out on Wysoka Górka, which should enable us to comprehensively investigate this complex historic site – a sacral-residential complex that is unique for the entire Europe – and render it accessible for the general public.

Aneks III. Datings of the brick samples from the northern part of the residential complex on the Cathedral Hill in Chełm

(Stanisław Fedorowicz)

The TL laboratory of the University of Gdańsk has dated six brick samples from the studied buildings D, F, part of the northern section of the residential-religious complex on the Cathedral Hill in Chełm.

All the dates represent the 13th century, corresponding to the written sources and the results of archaeological research. The article presents the values of measured concentrations of radium, thorium and potassium, as well as calculated values of annual doses and archaeological doses. Based on them, comparisons between individual bricks have been made, looking for material analogies. In this way, it has been shown that bricks from the samples 169 and 170 have the same composition of uranium, thorium and potassium radionuclides. In addition, the same age of these bricks indicates that in some part of the walls of the residential-religious complex in Chełm the building material is uniform. The remaining bricks of this building have shown a slightly different isotopic composition.