



كلمة العدد

عززي القارئ

كما في الأعداد السابقة يضم العدد السادس من مجلة «منجزات» مختصرات للنشاطات الأثرية، التي تمثل بمجموعها عمليات التنقيب والترميم والدراسات للفرق المحلية والدولية العاملة في البلاد. ونتائج هذه العمليات هي المادة الخام التي تعتمد عليها البحوث والدراسات في مجال التاريخ الحضاري الأردني. ومن هنا تأتي أهميتها البالغة التي لا يمكن تقديرها بعبارات بسيطة.

تضم بلادنا الحبيبة بعض أهم المواقع الأثرية في المنطقة والعالم، كجرش وأم قيس وأم الجمال وجبل القلعة والمغطس وتل ذيبان وتل حسان والبترا، ومن الطبيعي أن تستمر أعمال التنقيب والترميم في مواقع كهذه لتكشف كل مرة عن المزيد من تاريخها العريق.

بالرغم من الأبحاث المكثفة في المواقع الحضارية الكبرى فإنها لا تفتأ تفاجئنا بمكتشفات جديدة، كجرش التي ظهر فيها مسجد جامع مهيب من الفترة الأموية، وبقي مستخدماً في الفترتين العباسية والمملوكية، وبهذا الاكتشاف تزداد معرفتنا لجرش الإسلامية كمركز إداري رئيسي في البلاد.

أبدت الدائرة اهتماماً خاصاً بمواقع كان لها دور خاص في إدارة الريف، كالبديعة (محافظة عجلون) من الفترة الأيوبية المملوكية. وكذلك أجرت الدائرة أعمال ترميم وصيانة للمنشآت الريفية، مثل طواحين السكر في محافظة الكرك، ومن المعروف أن الكرك اشتهرت في الفترة الأيوبية والمملوكية بصناعة السكر الأبيض الممتاز. وكذلك طواحين الحبوب من الفترة العثمانية بمنطقة دير أبي سعيد أما في السلط، فقد كشف عن سور المدينة القديم وهو من الأمثلة النادرة للأسوار الدفاعية في العصر البرونزي.

مشاريع الترميم لا تشمل المواقع المعروفة، كأمر قيس وجرش وجبل القلعة وأم الرصاص وغيرها فحسب، بل تضم أيضاً مواقع تعود إلى مراحل حضارية قديمة، كالغويز في وادي فينان وهو موقع يعود إلى العصر الحجري الحديث (٩٠٠٠-٥٠٠٠ ق. م) وبقيت آثاره محفوظة بشكل ملحوظ ولهذا تدعم الدائرة مشروع صيانة هذه الآثار والمحافظة عليها.

وكلنا أمل أن يجد القارئ الكريم باحثاً أو مهتماً أو دارساً ما يفيد ويزيد معرفته بوطنه بما يقدمه الزملاء والزميلات من العاملين بهذه المؤسسة الوطنية من جهد للمحافظة على الآثار والكشف عنها، بالتعاون مع جامعاتنا ومؤسساتنا الرسمية وغير الرسمية وبالإشتراك مع المعاهد والجامعات والمؤسسات العلمية العريقة في الدول الصديقة.

ختاماً، لا يسعني إلا التوجه بشكري الجزيل للطواقم الوطنية والأجنبية التي تعمل حثيثاً بغرض الكشف عن آثار بلادنا الحبيبة وتاريخها، وبالطبع كل الشكر لطاقم المجلة الذي يعكف بإخلاص وتفان على إصدار «منجزات»، التي هي جزء من مسيرة لا تتوقف من الخير والعطاء يقودها جلالة ملكنا المفدى عبد الله الثاني ابن الحسين المعظم.

رئيس التحرير

د. فواز الخريشة



منجزات ٢٠٠٥

مجلة منجزات

رئيس التحرير

د. فواز الخريشة

هيئة التحرير

د. رافع حراحشة

سحر التسور

حنان عازر

تصدر عن

دائرة الآثار العامة

صندوق بريد ٨٨

عمان ١١١١٨ - الأردن

البريد الإلكتروني
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المحتويات

المشاريع المحلية

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١٣	أمجد البطاينة	٣- ترميم وإعادة تشغيل طاحونة عمودة/ وادي الريان/ الكورة
		محافظة عجلون
١٤	إبراهيم الزعبي	١- صيانة وترميم قلعة عجلون
١٥	إبراهيم الزعبي/ زياد غنيمات	٢- الصيانة والترميم والتنقيبات في البدية
		محافظة جرش
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١٧	محمد البلاونة/ موسى ملكاوي	٢- اتنقيبات البوابة الشمالية
١٨	عبد المجيد مجلي	٣- إعادة تعميم جرش
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١٩	عبد القادر الحصان	١- الصيانة والترميم في رحاب
٢٠	ناصر خصاونة / جميل عليان	٢- التنقيب والصيانة والترميم لكنيسة جورجوس/ سما السرحان
٢٢	محمد علي الخطيب	٣ ترميم البيت الأموي رقم (١٩)
٢٣	ناصر خصاونة/ حسين السرحان	٤- الترميم والتنقيب الكنيسة الشمالية/ أم القطين
		محافظة البلقاء
٢٤	سعد الحديدي/ يزيد عليان/ أحمد الطواهية	١- تنقيبات تل الجادور
	سعد الحد يدي/ يزيد عليان/ أحمد الطواهية	٢- تنقيبات قلعة السلط
٢٥	سعد الحديدي/ يزيد عليان	٣- التنقيبات والترميم في الدير/ الفحيص
٢٦	رستم مكجيان	٤- صيانة وترميم اثار المغطس
٢٨	سعد الحديدي/ يزيد عليان/ حسين الجراح	٥- مسح حقل داميا
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٣٨	كاترين حمارة / عبد المجيد مجلي	٣- الصيانة والترميم وتغطية لأرضية كنيسة "كوزموس ودميانوس" / جرش
٣٨	كاترين حمارة	٤- صيانة وترميم الأرضيات الفسيفسائية لكنيسة الأسقف سيرجيوس والقديس اسطفانوس/ أم الرصاص
٣٩	مدرسة مادبا للفسيفساء	٥- صيانة وترميم الأرضيات الفسيفسائية قبو زيوس/ جرش
٣٩	معهد الآباء الفرنسيسكان/ مدرسة مادبا للفسيفساء	٦- أعمال الصيانة والترميم لفسيفساء كنيسة الكاهن يوحنا/ المخيط معهد
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٤٦	سوسن الفاخري	٢- صيانة وترميم متحف العقبة
٤٧	سوسن الفاخري	٣- ترميم الخزان المائي في الحميمة
٤٧	سوسن الفاخري	٤- تسييج النظام المائي المحيط بموقع حجيرة الغزلان

35°0'0"E

36°0'0"E

37°0'0"E

38°0'0"E

39°0'0"E



دائرة الآثار العامة

المشاريع المحلية / ٢٠٠٥

34°0'0"N

33°0'0"N

32°0'0"N

31°0'0"N

30°0'0"N

29°0'0"N

34°0'0"E

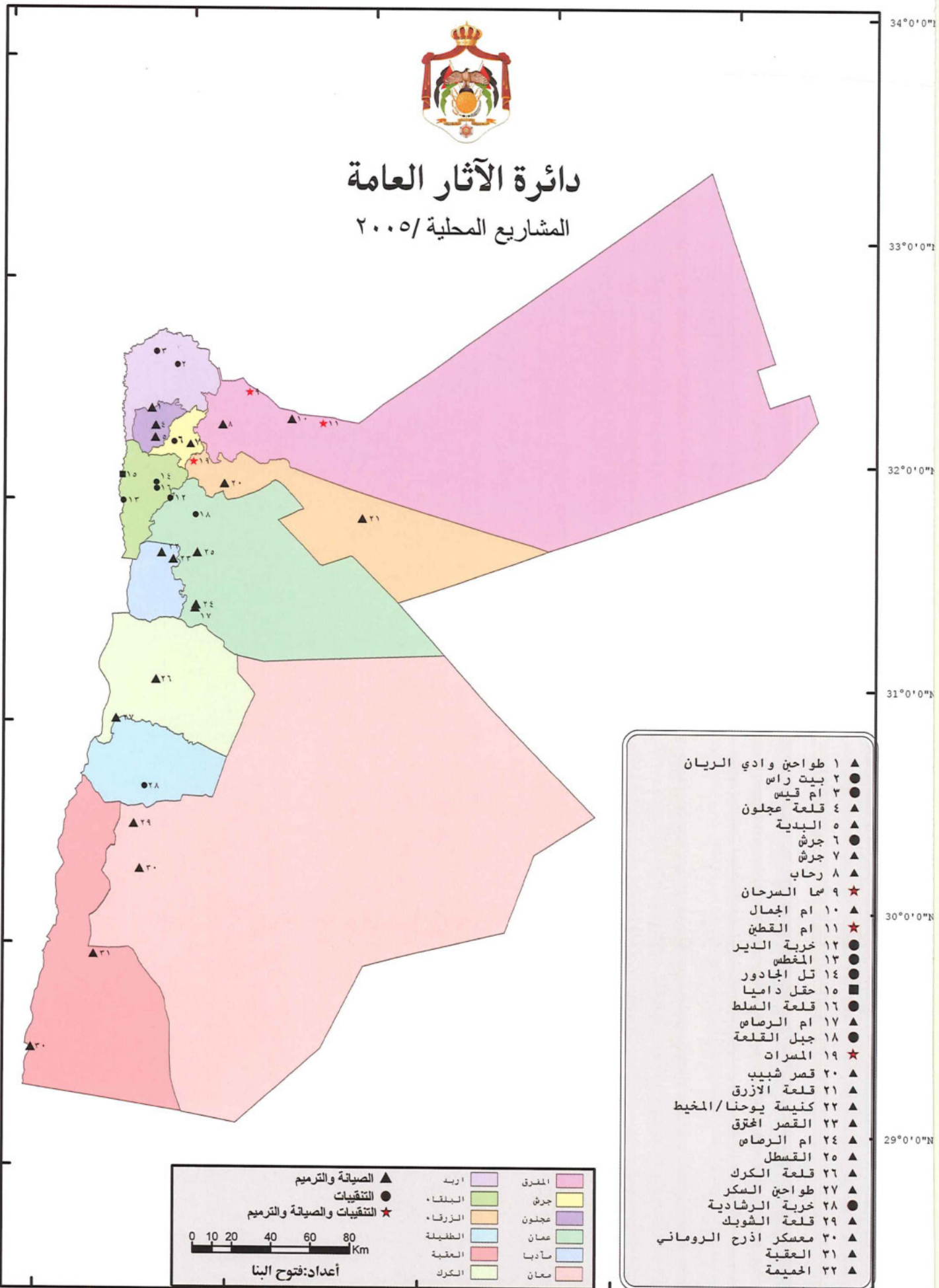
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32°0'0"E

31°0'0"E

30°0'0"E

29°0'0"E



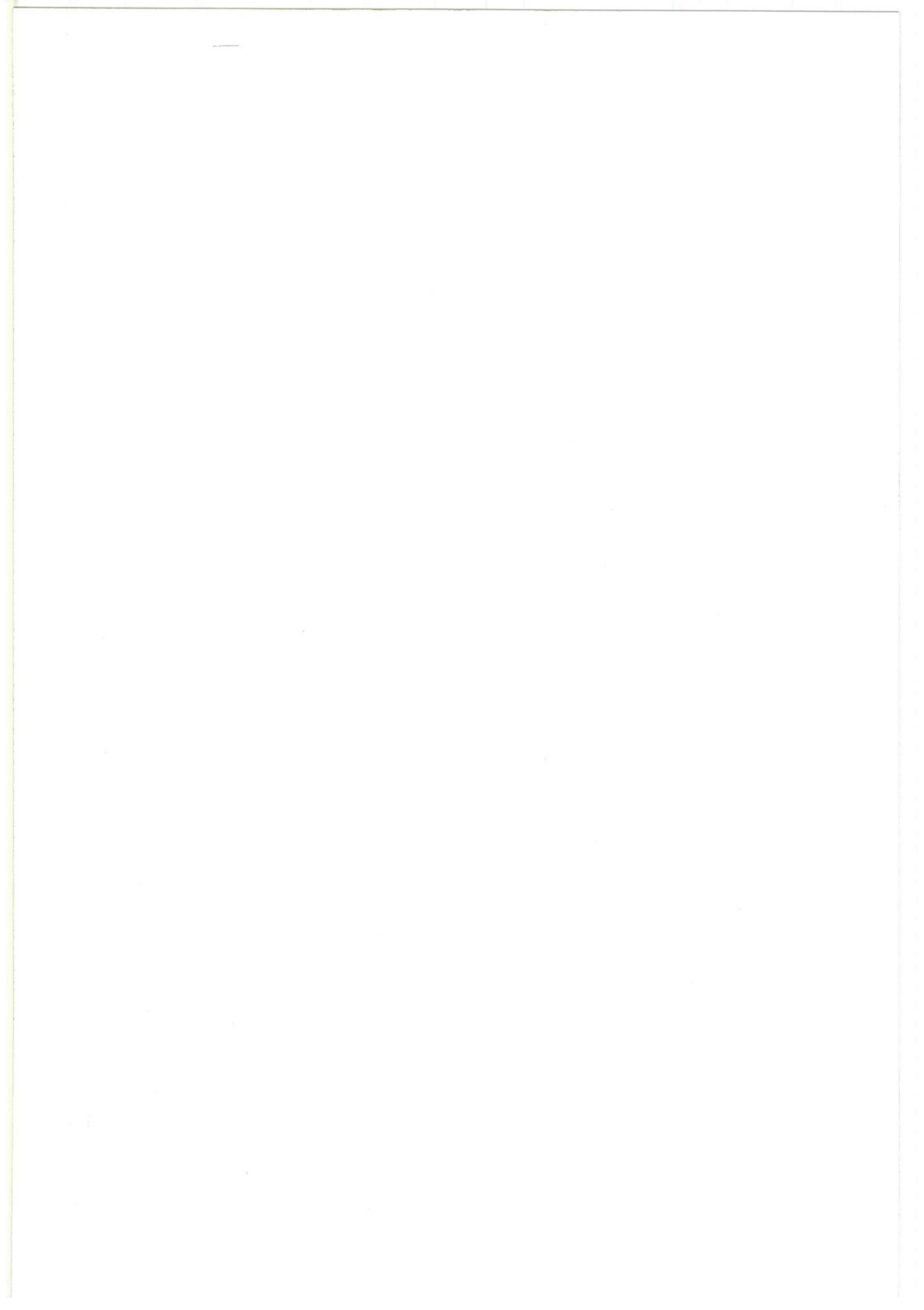
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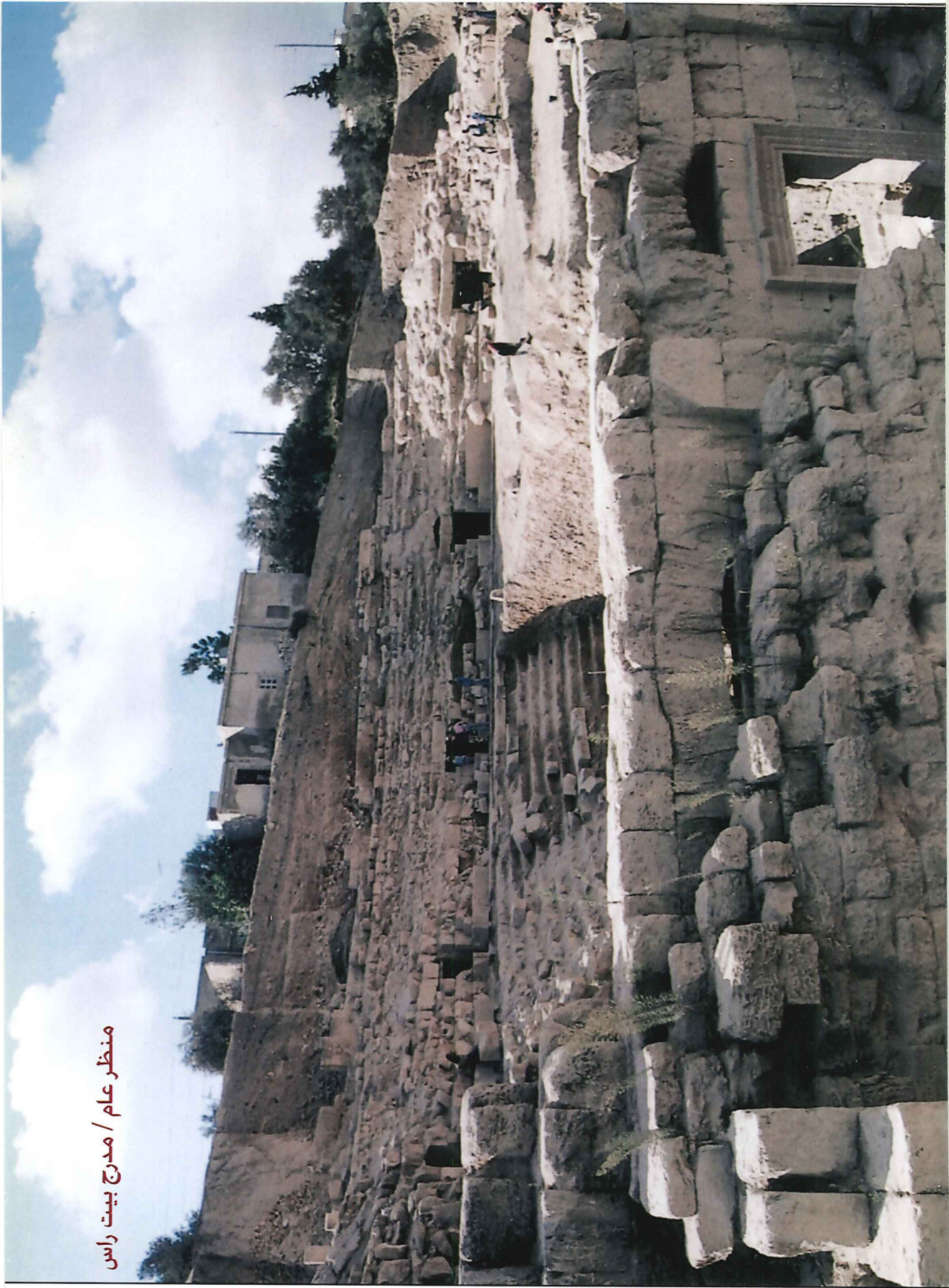
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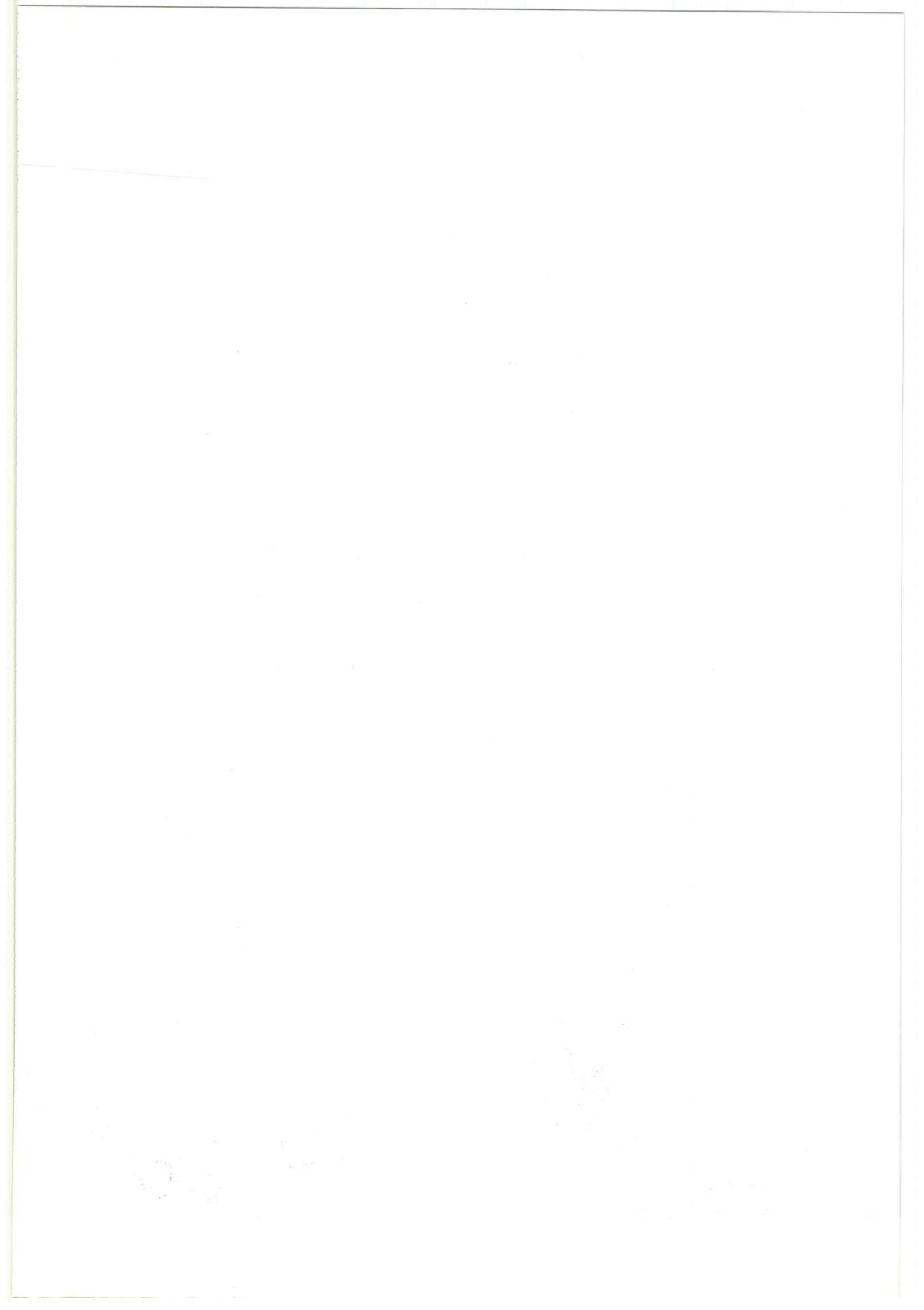
39°0'0"E



منظر عام / مدرج بيت راس

المشاريع المحلية







اسم المشروع: تنقيبات بيت راس

مشرفا المشروع: وجيه كراسنه / سلامة فياض

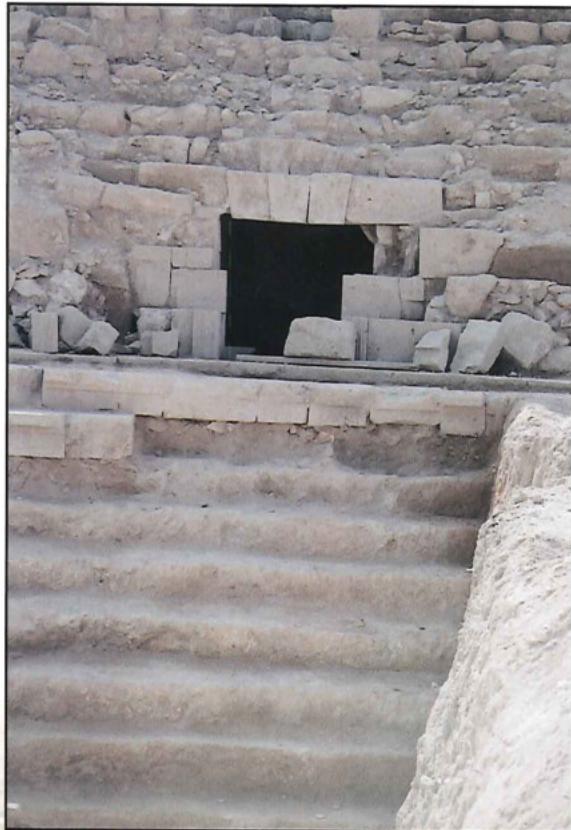
تاريخ المشروع: ١/٤ - ٣١/١٠/٢٠٠٥ م.

كلفة المشروع: ٣٠ ألف دينار

مصدر التمويل: موازنة دائرة الآثار العامة

١- استكمل العمل في منطقة تغيير الملابس حيث كشف عن غرفة مستطيلة في الجهة الشرقية تبلغ أبعادها (٣,٤٠×٤,٧٥م) يتقدمها ممر مستطيل بعرض (١,٦٠م)، لها ثلاثة مداخل اثنان في الجدار الشمالي يطلان بالأصل إلى خارج المسرح، أغلقا لاحقاً بامتداد سور المدينة الذي جاء بمحاذاة الجدار الشمالي الخارجي، أما المدخل الثالث فيقع في الجدار الغربي للممر المؤدي إلى الغرفة ويطل باتجاه الغرب بعرض حوالي (١,٦٠م)، استخدم الحجر الكلسي الطباشيري في بناء جدران الغرفة والممر ويلاحظ تعرض جداريها الغربي والجنوبي إلى الانهيار والتدمير حيث لم يبق من الجدار الجنوبي إلا عدد قليل من المداميك، وكذلك يلاحظ التفاوت في عرض الجدار حيث يبلغ عرضه في الجزء الخاص بالممر حوالي (٢,٧٠م) والجزء الخاص بالغرفة حوالي (١,٥٠م) كما ويلاحظ مدى التناظر الكبير ما بين الجزء الذي كشف عنه في هذا الموسم، والجزء الغربي الذي يقع على نفس الامتداد والذي كشف عنه في المواسم السابقة، وبهذا يكون قد تم الكشف وبشكل كامل عن هذا الجزء من المسرح.

٢- الكشف عن الجزء السفلي من المدرج المخصص لمقاعد المشاهدين، بمساحة (٢٧٠م)، وعثر على بعض المقاعد لا زالت في مكانها الأصلي.



جزء من مقاعد المشاهدين



منظر عام أثناء أعمال التنقيبات



اسم المشروع : نقيبات المبنى المئمن / أم قيس

مشرف المشروع : عماد عبيدات

تاريخ المشروع : ٤/١ - ٢٠٠٥/١٢/٣١ م

كلفة المشروع : ٥٠ ألف دينار

عدد العمال : ١٦ عاملاً

مصدر التمويل : موازنة دائرة الآثار العامة

العمل والنتائج :-

تركزت التنقيبات في هذا الموسم في الجانب الشرقي للمبنى المئمن لمتابعة الكشف عن المنشآت المعمارية التي عُثر عليها خلال المواسم السابقة من التنقيبات والعائدة إلى المراحل التاريخية المتأخرة من إعادة استخدام الموقع. كشف عن حجرة من الحجر الجيري الهش، لها علاقة بالمنشآت المعمارية السكنية التي كُشف عنها في المواسم السابقة، والتي تؤرخ إلى المراحل البيزنطية والأموية عُثر فيها على رصفة بازلتية يبلغ قياسها (٢٢م × ٥م) تمتد باتجاه الجنوب. رصفت ببلاطات بازلتية مستطيلة شبيهة بالبلاطات البازلتية التي رصفت بها شوارع المدينة الرئيسية والفرعية. إن تحديد وظيفة هذه الرصفة المحاطة بقواعد أعمدة على جانبها الشرقي والمقامة مباشرة على التراب يتطلب التوسع بأعمال التنقيب باتجاه الشرق، ومن المؤكد أن الرصفة الحجرية هذه تعود إلى الفترة الأيوبية المملوكية. أقيمت الرصفة على مستوى أعلى بكثير من مستوى الساحة العامة المبلمطة وغطيت أجزاء منها فوق طبقة ترابية سميكة جداً.



الفسيفساء



رصفة من الحجارة البازلتية



الساحة العامة وتبدو الأعمدة المتساقطة



اسم المشروع: ترميم وإعادة تشغيل طاحونة عودة/ وادي الريان / الكورة

مشرف المشروع: م. أمجد البطاينه

تاريخ المشروع: ٢٠/٦ - ٣٠/١٠/٢٠٠٥.

كلفة المشروع: ١٠ آلاف دينار

عدد العمال: ١٥ عاملا

مصدر التمويل: موازنة دائرة الآثار العامة

العمل والنتائج:-

- ١- ترميم وصيانة الجدران ومرفقات الطاحونة.
- ٢- إعادة تركيب أجزاء الطاحونة، الدولاب، وحجارة الطحن.
- ٣- إعادة تشغيل الطاحونة كما كانت سابقا لتكون نموذجا حيا للطواحين في وادي الريان للتعريف بأحد المرافق الاقتصادية التي اعتمد عليها المجتمع الأردني في طحن الحبوب قبل استخدام الآلات الحديثة.



طاحونة عودة بعد الترميم



صيانة المنطقة المحيطة بالموقع



اسم المشروع: صيانة وترميم قلعة عجلون
مشرف المشروع: ابراهيم الزعبي
تاريخ المشروع: ٦/١ - ٣١/١٢/٢٠٠٥
كلفة المشروع: ٣٠ ألف دينار
عدد العمال: ١٧ عاملا
مصدر التمويل: موازنة دائرة الآثار العامة.

العمل والنتائج:

- ١ - ترميم وتقوية المقطع الصخري الحامل لدرج القلعة الرئيسي (المنطقة الجنوبية)
- ٢ - ترميم الجدار الشرقي لبرج ابيك بن عبدا لله الجنوبي.
- ٣ - نقل الحجارة من قاعات الظاهر ببيرس.
- ٤ -- تعبئة الفجوات الصخرية العميقة في مدخل سوق العبيد وقاعة (١) وقاعة (٤) بحشوة غائرة مكونة من الحجارة الصغيرة والمونة الاسمنتية، بحيث لا تؤثر على طبيعة الشكل الاصلي للصخور.
- ٥ - إعادة فتح طاقة تهوية في سقف قاعة (٤) والتي تعاني من رطوبة عالية جدا، وتحويل سقف قاعة (٢) في سوق العبيد.
- ٦ - ازالة الاعشاب والنباتات النامية على الجدران والأرضيات.
- ٧ - إعادة تأهيل المنطقة الواقعة خلف الحمامات مباشرة.
- ٨ - صيانة درج القلعة الرئيس قبل الجسر وتحويل البلاط الحجري وتركيب بعض القطع المفقودة من الدرج.



الواجهة الداخلية للجدار الشرقي لبرج أبيك قبل الترميم



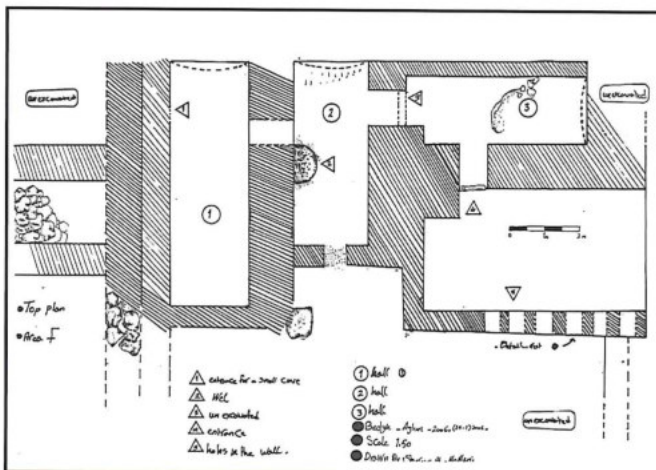
بعد الترميم



الغرف اللاحقة لمجمع الكنائس قبل الترميم



... بعد الترميم



مخطط الموقع الأثري لموسم ٢٠٠٥م

اسم المشروع: الصيانة والترميم والتنقيبات في البدية

مشرفا المشروع: ابراهيم الزعبي/ زياد غنيمات

تاريخ المشروع: ٥/٢ - ٢٠٠٥/١٢/٣١

كلفة المشروع: ٤٠ ألف دينار

عدد العمال: ١٨ عاملا

مصدر التمويل: وزارة التخطيط

الصيانة والترميم

العمل والنتائج:

- ١- تقوية جدران الغرف الواقعة في الطرف الشمالي الشرقي لمجمع الكنائس.
- ٢- تقوية وصيانة جدران الغرف الموجودة في المجمع السكني.
- ٣- تقوية وصيانة جدران الغرف الواقعة في المنطقة (C) وقد شملت اعمال الصيانة والتقوية في هذه المنطقة تنظيف البلاطات الحجرية المكونة لأرضية المسجد من الاعشاب والأتربة المتراكمة سابقا ووضع مادة رابطة لجدران الغرفة الموجودة بجانب المسجد من الجهة الشمالية.
- ٤- تنظيف الارضيات الفسيفسائية الموجودة في الموقع من الاعشاب لحماية الارضيات من التلف.

كشفت التنقيبات في موقع البدية لهذا الموسم عن :-

- ١- جدار مثبت بتربة وحجارة صغيرة فيه ست فتحات ذات شكل هندسي.
- ٢- بئر بُنيت فوهته من الحجارة المتوسطة يبلغ قطرها (٦٠سم) ويعتقد انه استخدم لتخزين مياه الامطار لغاية الشرب وذلك لوجود فلتر ماء يؤدي الى البئر.
- ٣- ثلاثة اقبية وتم تنظيفها بشكل كامل.
- القبو الاول : - غرب شرق طوله (٦,٨٥م) وعرضه (٢,٢٤م) وسمك الجدار الجنوبي للقبو (١م) وسمك الجدار الشمالي (١,٢٠م) شكل القبو برميلي منهار التسقف.

- القبو الثاني : - غرب شرق طوله (٥,١٠م) وعرضه (٢,١٧م) وسمك الجدار الجنوبي (١,٣٠) وسمك الجدار الشمالي (١,٢٠م) ذو شكل برميلي تعرض سقفه للانهار.

بشكل كامل، فيه بئر ماء قطر فوهته (١,١٠م)، وفي الجدار الشمالي للقبو مدخل يؤدي الى القبو الثالث.

- ١- القبو الثالث : - شمال جنوب طول القبو كاملا (٦,٢٠م) وعرضه (٢م) ذو شكل برميلي وسقفه موجود بالكامل وداخل القبو حوض محفور بالصخر.

الكشف عن مدفين في الجهة الجنوبية الغربية من موقع البدية تعرضا سابقا للعبث فيها كسر فخار وزجاج وكميات كبيرة من العظام البشرية.



اسم المشروع: تنقيبات البركتين

مشرفا المشروع: محمد البلاونة/ موسى ملكاوي

تاريخ المشروع: ٦/٨-٣١/١٠/٢٠٠٥

كلفة المشروع: ١٠ آلاف دينار

عدد العمال: ١٦ عاملاً

مصدر التمويل: وزارة التخطيط

العمل والنتائج

استكمالاً لأعمال التنقيب والترميم في موقع البركتين وتطوير الموقع وتأهيله سياحياً قامت دائرة الآثار في هذا الموسم بتنفيذ تنقيبات بهدف الكشف عن المزيد من العناصر المعمارية المحيطة بالموقع وحيث كشفت التنقيبات عن :

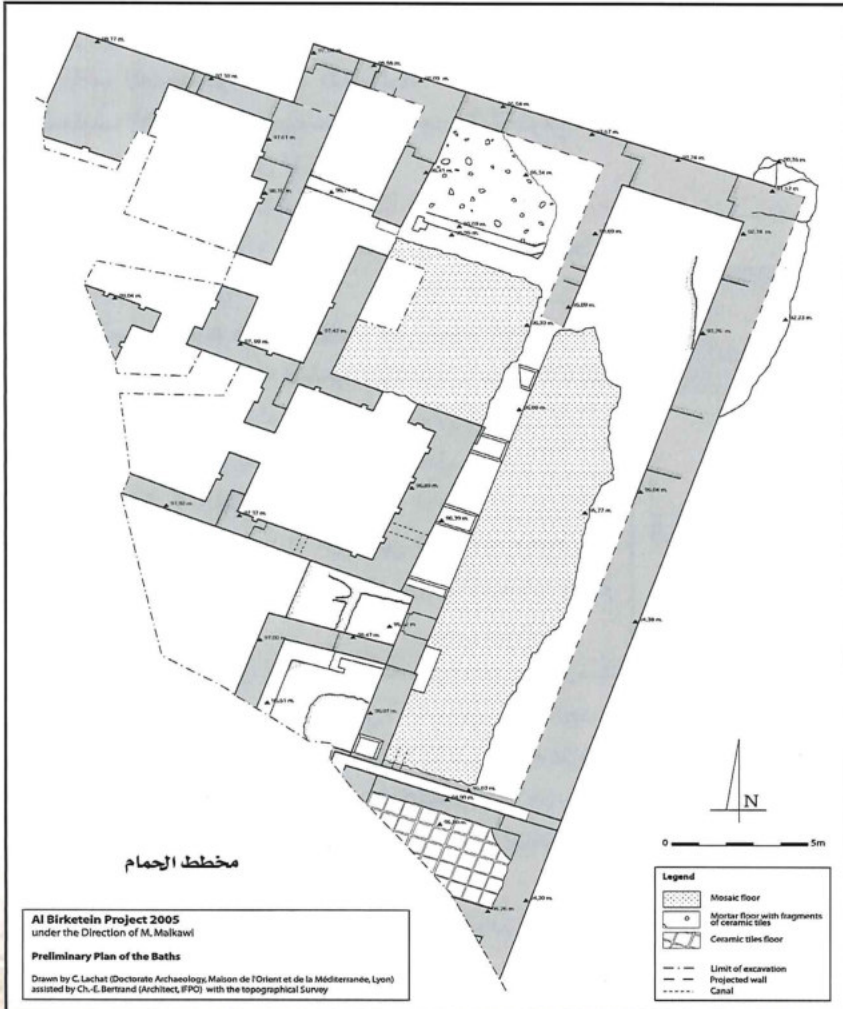


الغرف الساخنة بعد العمل

١- حمام روماني بغرفه الثلاث الباردة والدافئة والساخنة.

٢- جدران تعود للفترة الأيوبية والملوكية.

٣- أرضيات غرف تعود للفترات الرومانية والأموية واكتشاف هذه العناصر يشير إلى استمرارية اشغال الموقع من الفترة الرومانية وحتى الأيوبية الملوكية.





اسم المشروع: التنقيبات في البوابة الشمالية
مشرفا المشروع: محمد البلاونه/ موسى ملكاوي
تاريخ المشروع: ٦/٨ - ٢٠٠٥/١٠/٣١
كلفة المشروع: ١٠ آلاف دينار
عدد العمال: ١٠ عمال
مصدر التمويل: وزارة التخطيط

العمل والنتائج :-

تقرر عمل تنقيبات في محيط البوابة قبل البدء بأعمال الترميم. تركز العمل في الجهة الغربية للبوابة من الداخل حيث حُفر عشرة مربعات وجاءت النتائج على النحو التالي:

١- الكشف عن أساسات الجدار الداعم للصور الدفاعي، (والجدار التأسيسي) للمدينة بارتفاع (٢,٦٤م) وعرض (١م) تعود للفترة الرومانية.

٢- الكشف عن جدران من الحجر الجيري تُشكل مبنى (صالة) مستطيلة الشكل باتجاه شمال جنوب مع ميلان قليل نحو الشرق.

٣- الكشف في الطبقات السفلى عن أساسات لجدران غير منتظمة وغير واضحة التفاصيل، وأقيمت فوق التراب تعود هذه الأساسات إلى مبنى من فترة متأخرة.

٤- عُثر علىلقى أثرية فخارية، أباريق وأسرجة وجرة وصحن.



تنقيبات بجانب البوابة الشمالية



البوابة الشمالية قبل العمل



اسم المشروع: إعادة تعمير جرش
 مشرف المشروع: عبد المجيد مجلي
 تاريخ المشروع: ١/١ - ١٢/٣٠/٢٠٠٥ م
 كلفة المشروع: ١٥٠ ألف دينار
 مصدر التمويل: موازنة دائرة الآثار العامة

العمل والنتائج:

أولاً:- بوابة هيدرمان (قوس النصر)

تركيب المداميك العلوية المكرنشه و المثلت في الطابق العلوي

ثانياً:- ميدان سباق الخيل (الهيبدروم):

١- ترميم القوس البرميلي للغرفتين رقم (١ ، ٢) من الناحية الجنوبية الشرقية و المحاذية للبرج الجنوبي بطول (٤٠ ، ٥٠) × (٣٠ ، ٧٠) م و بناء العقد الحجري الخاص بها .

٢- بناء و ترميم ثلاثة مداميك في الواجهة الأمامية للغرفتين الأولى و الثانية المحاذيتين للبرج الجنوبي. بطول (٨٠) م مع ترميم الشباك العلوي فوق المدخل لكل غرفة و تحكيل فواصل المداميك التي تم ترميمها.

٣- تنظيف الغرف المحيطة بالميدان.

٤- بناء مدامكين في الغرفة رقم (٢) بطول (٤٠ ، ٨٠) م من كلا الجانبين تمهيداً لترميم العقد البرميلي .

٥- إزالة الكحلة الخاصة بالعقود و المتداخلة في الغرف الأربعة التي تم تحكيلها في السابق و إعادة تحكيلها بالإسمنت الأبيض و الشيد.

٦- تسهيل و تسوية أرضية الهيبدروم و تغطيتها بالرمل الناعم.

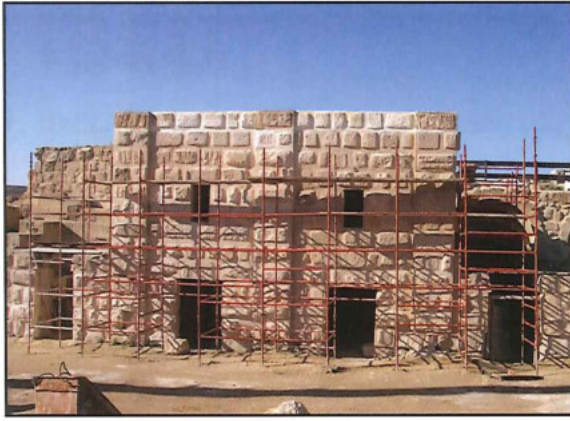
٧- وضع فاصل خشبي في منتصف الهيبدروم.

٨- تركيب حواجز خشبية و تركيبها على أبواب الواجهة الجنوبية للهيبدروم.

٩- تركيب حاجز أمامي لحماية الجمهور و المحافظة على السلامة العامة بطول (٦٥) م.



الواجهة الجنوبية لقوس هيدرمان بعد الترميم



الغرف بعد الترميم



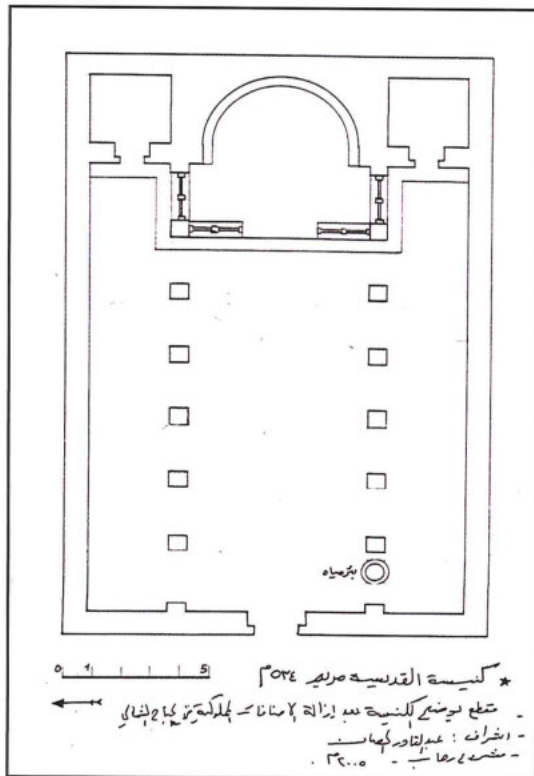
الهيبدروم ويظهر الفاصل الخشبي في المنتصف



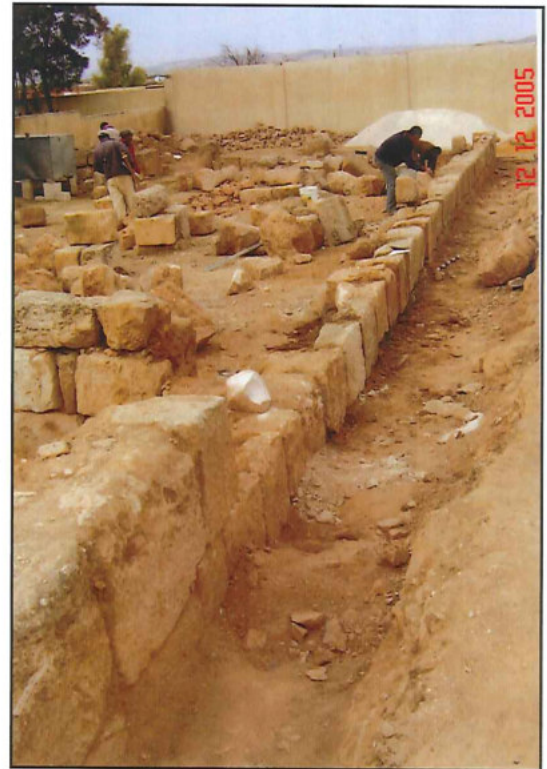
اسم المشروع: صيانة وترميم رحاب
مشرف المشروع: عبد القادر الحصان.
تاريخ المشروع: ٧/١٥ - ٣١/١٢/٢٠٠٥ م.
كلفة المشروع: ١٥ ألف دينار.
عدد العمال: ١٧ عاملاً.
مصدر التمويل: موازنة دائرة الآثار العامة.

بهدف العمل والنتائج:

- تركزت الأعمال لهذا الموسم على التالي:-
- ١- صيانة أحد اشلمباني المستملكة ونقل مكتب الآثار اليه.
 - ٢- صيانة السياج المحيط بالمكتب وبالدير الاموي كنيسة القديس شجورجيوس.
 - ٣- البدء بأعمال الصيانة والترميم في كنيسة القديسة مريم والعائدة للعام ٥٣٣ م وهي بطول ٢١ م من الشرق الى الغرب ويعرض ١٤ م من الشمال الى الجنوب.
 - ٤- البدء بترميم الجدار الشمالي بمقدار مدماك واحد على الجهتين والجدار الغربي بمقدار مدمكين.



مخطط كنيسة القديسة مريم



الجدار الشمالي أثناء الترميم



اسم المشروع: اعمال التنقيب والصيانة لكنيسة جورجوس وملحقاتها سما السرحان.
مشرفا المشروع: ناصر خصاونه / جميل عليان
كلفة المشروع: ١٠ آلاف دينار.
تاريخ المشروع: ٦/١ - ٢٠٠٥/٨/٣١
عدد العمال: ٩٠ عاملا.
مصدر التمويل: وزارة التخطيط.

العمل والنتائج

تم التركيز في الموسم السابق على الساحة الشمالية الخارجية لكنيسة جورجوس وكُشف عن جميع الجدران وترميمها كما كُشف عن جزء بسيط من أرضية الساحة وتبين أنها مرصوفة بالحجارة البازلتية السوداء .



الأرضية الحجرية للبناء

تركز العمل في هذا الموسم في بناء مستطيل الشكل يتخلله أربعة عقود تتجه شمال جنوب وتبلغ مساحة البناء (٣٠,٣٠ × ١٠,٥٠ م).

بدء العمل بإزالة الطمم والحجارة من الجهة الغربية بمحاذاة الشارع وبعد التنقيب كُشف عن بقايا اساسات إحدى قواعد الأقواس والتي تحمل السقف، وتتكون هذه القاعدة من خمسة مداميك متلاصقة مع الجدار الجنوبي للبناء، وتتميز هذه الحجارة بكبر حجمها نسبياً وتشذيبها، والى الشرق من بقايا اساسات القاعدة السابقة وعلى بعد حوالي (٦٠ م) كُشف عن اساسات لقاعدة ثانية تتكون من أربعة مداميك من الحجارة وعلى بعد (١٠٥ م) من اساسات القاعدة



البناء بعد الترميم

الثانية كُشف عن بقايا اساسات لقاعدة ثالثة وتتكون من ثلاثة مداميك من الحجارة المشذبة. تقع جميع هذه القواعد في الجهة الجنوبية من البناء مما يدل على أن الأقواس التي كانت تحمل السقف تتجه من الجنوب إلى الشمال.

الجدار الجنوبي للبناء المتجه شرق غرب فقد كُشف عن حوالي (٥٠ م) منه ويتراوح ارتفاعه ما بين (٨٠ سم) من الجهة الغربية التي دُمر معظم المباني فيها إلى (٣٠ م) في الجهة الشرقية وتتميز حجارة البناء بأنها اقل إتقان وتشذيب من حجارة القواعد المكتشفة.



كُشف عن الجدار الشرقي للبناء الذي يتجه شمال جنوب كُشف عنه بالكامل ويبلغ طوله (٣٠,٥ م) ويتداخل مع الجدار الجنوبي مما يدل على أن الجدارين بُنيا في نفس الفترة ويبلغ أقصى ارتفاع للجدار الشرقي في الزاوية التي يتلاقى فيها مع الجدار الجنوبي (٣٠,٢ م) .

ويوجد مقابل هذه القواعد بقايا ثلاث قواعد أخرى تقع في الجهة الشمالية للبناء، الأولى تتكون من مدماكين ويلاحظ أن المدماك الأول بُني من حجر متقن بعض الشيء ومشذب أما المدماك الثاني فهو اقل إتقان. وهي موازية للقاعدة الواقعة في الجهة الجنوبية من البناء، وإلى الشرق على بعد (٦٠,١ سم) وجد بقايا قاعدة أخرى تتكون من أربعة مدماميك، غير متقنة الصنع، وعلى بعد (٥٠,١ م). إلى الشرق منها كذلك بقايا قاعدة ثالثة وما يميزها أنها غير موازية للقاعدة الواقعة في الجهة الجنوبية بعكس القاعدتين السابقتين، وبُنيت من حجارة غير متقنة الصنع.

كُشف عن بقايا الجدار الشمالي للبناء الذي يتجه شرق غرب ويبلغ طول الجزء المكتشف (٢٠,٤ م) ويتكون الجدار من مدماكين إلى ثلاثة مدماميك في أفضل حالاته.

- الكشف عن بقايا رصفة حجرية من الحجر البازلتى الأسود رصفت باتجاه شمال جنوب. يبلغ متوسط قياسات حجارته (٦٠×٤٥ سم) وتبلغ المساحة المكتشفة منها (٣,٦٠×٢,٢٠ م) وتمتد أسفل القواعد في الاتجاهين الجنوبي والشمالي ويلاحظ أن الأرضية دمرت في منتصف البناء المكتشف وتحديداً بين بقايا القاعدة الثانية والثالثة باتجاه الشرق، كُشف عن جزء من أرضية تختلف عن الأولى تمتد بعد القاعدة الثالثة من الجهة الجنوبية شرقاً لتصل إلى أسفل الجدار الشرقي رصفت باتجاه شمال جنوب (نفس اتجاه الأرضية الأولى) وتبلغ مساحة الجزء المكتشف منها (٨٠,١×٢,٥٠ م) تتميز بأنها من الحجر الجيري كبير الحجم.



الجدران بعد الترميم



قواعد حاملة الأقواس



اسم المشروع ترميم البيت الأموي رقم (١٩) / أم الجمال

مشرف المشروع : م. محمد علي الخطيب

تاريخ المشروع : ٨/١ - ٢٠/١٢/٢٠٠٥

كلفة المشروع : ١٥ ألف دينار

عدد العمال : ٣٥ عاملاً.

مصدر التمويل: موازنة دائرة الآثار العامة

العمل والنتائج:

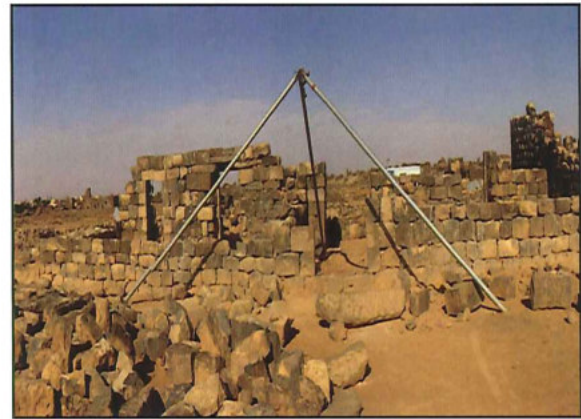
بهدف تأهيل وترميم المبنى وإعداده ليضم متحف وخدمات لزوار المدينة الأثرية في أم الجمال، اهتمت خطة هذا الموسم في المرحلة الأولى بالتوثيق وعمل رسومات للمبنى (مخطط أفقي واجهات ومقاطع) وتنظيف ونقل الحجارة من داخل الغرف ووضعها في أماكن محددة قرب المبنى.

في المرحلة الثانية تنظيف بعض الجدران من التراب وفك وإعادة تركيب بعض الجدران.

في المرحلة الأخيرة لهذا الموسم تم إعادة بناء بعض الجدران وتقويتها من الداخل مع مراعاة توضيح المداميك المبنية حديثاً عن المداميك الأصلية.



أثناء الترميم



البيت الأموي قبل الترميم



اسم المشروع: ترميم وتنقيب الكنيسة الشمالية وملحقاتها / ام القطين
مشرف المشروع: ناصر خصاونة/ حسين السرحان
كلفة المشروع: ١٥ الف دينار
تاريخ المشروع: ٧/١ - ١٠/١٠/٢٠٠٥ م
عدد العمال: ٣٠ عاملاً
مصدر التمويل: وزارة التخطيط.

العمل والنتائج

- نقب في ١٢ مربعاً حيث كُشف عن:-
- ١- غرفة مردومة تقع الى الشمال من الغرفة الواقعة اقصى الطرف الشمالي الشرقي للكنيسة وابعادها من الداخل (٥×٦م) مقسمة من الداخل بجدران ربما تؤرخ للفترة الاموية والمملوكية من خلال كسر الفخار الأموي والمملوكي التي عُثر عليها.
 - ٢- مصطبة حجرية بمحاذاة الجدار الجنوبي للغرفة المكتشفة وبمحاذاة الجدار الشرقي للممر.
 - ٣- ساحة وممر (٢×٢,٥م).

الصيانة والترميم:-

- ١- تعديل وترميم الجدار الشرقي للغرفة المرتبطة بالكنيسة الواقعة في اقصى الطرف الشمالي للكنيسة .
- ٢- ترميم الجدار الشرقي للممر.
- ٣- ترميم مدماك فوق المدماك الاصلي للجدار الجنوبي للغرفة المكتشفة.
- ٤- ترميم المصطبة المحاذية للجدار الشرقي للممر.



بعد العمل



قبل العمل



إسم المشروع: تنقيبات تل الجادور/السلط

مشرفو المشروع: سعد الحديدي، يزيد عليان، أحمد الطواهي.

تاريخ المشروع: ٢/١٥ - ٢٠٠٥/٤/١٥

كلفة المشروع: ٧ آلاف دينار

عدد العمال: ١٥ عاملاً

مصدر التمويل: بنك الأتحاد الياباني.



جدار دفاعي من العصر البرونزي

أسباب العمل في الجادور :

تقوم وزارة الأشغال ووزارة السياحة بتمويل من اليابان بمشروع تطوير وسط مدينة السلط وإقامة مطلات سياحية أحدها يقع في تل الجادور في (المدرسة الثانوية) مما استدعى اجراء مجسات أثرية في الموقع.

العمل والنتائج:

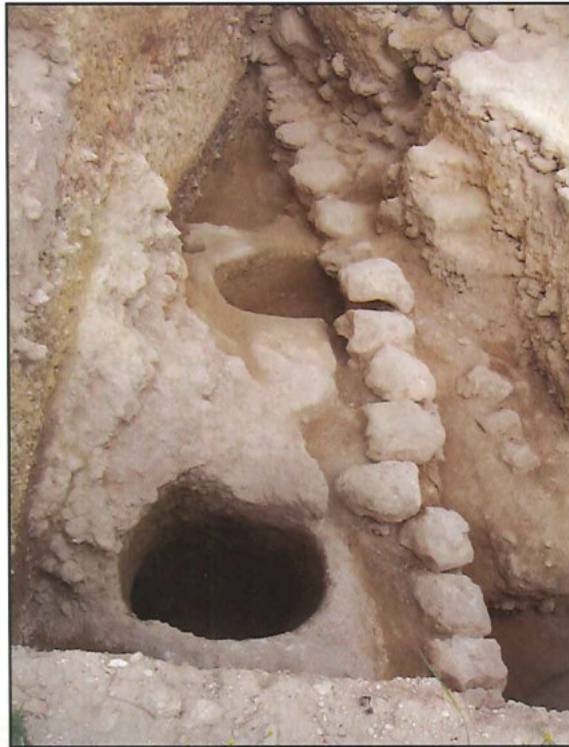
كشفت التنقيبات في الموسم الاول عن مدفتين محفورتين في الصخر يرجعان الى العصر البرونزي.

استمر العمل في الموسم الثاني لاستكمال الكشف عن الجدار الدفاعي الذي يقع امام المدافن مباشرة، حيث كشف عما يزيد عن خمسة عشر متراً من السور وما يزال ممتداً في طريف المنطقة التي يتم التنقيب فيها.

ويبلغ ارتفاع الجدار حوالي ثلاثة امتار ويُنِي من الحجر الكلسي غير المشذب المتوسط الحجم وثبتت حجارتة بالطين والشيد.

يتكون الجدار من صف واحد يمكن مشاهدة مدايكه من الجهة الشمالية بينما ملئ الوجه الاخر منه بالطين والحجارة غير المنتظمة .

كسر الفخار التي عُثِر عليها في المستويات السفلى من الجدار ارجت الى العصر البرونزي الوسيط وهو ما يوازي زمن المدن المسورة في كل من اريحا وجبل القلعة في عمان. وبهذا تكون السلط من المدن النادرة التي ازدهرت في العصور البرونزية والتي تم احاطتها بسور دفاعي. كشف عن قبر ثانٍ يعود للعصر البرونزي القديم وجد فيه أسرجه وجرار فخارية.



مدافن من العصر البرونزي



الجزء المتبقي من القلعة

اسم المشروع : تنقيبات قلعة السلط
مشرفو المشروع : سعد الحديدي ، يزيد عليان ، احمد الطواهي
كلفة المشروع: ١٥٠٠ دينار
تاريخ المشروع : ٨/٩ - ٢٠٠٥/٩/٩
عدد العمال: ١٠ عمال
مصدر التمويل : موازنة دائرة الآثار العامة

العمل والنتائج:

- التنقيب في اربعة مجسات مختلفة في القلعة التي اختفت معالمها تماماً بسبب النشاط العمراني الكثيف حولها حيث استخدمت حجارتهما ببناء المنازل إضافة إلى ان وزارة الاوقاف قامت ببناء مسجد فوقها.
 - كشف عن جانب من بوابة القلعة في الزاوية الجنوبية الغربية التي تحف بالخندق المحفور حول القلعة وتم الكشف عن جانب واحد من جانبي بوابة القلعة في الجهة الغربية. ويبلغ ارتفاع البوابة عن العتبة السفلية حوالي ١ م والعرض المكتشف ٣,٥ م ويعتقد بان هذه البوابة هي احدى البوابات الرئيسية لقلعة السلط.
 وكشف المجس الثاني وسط الجهة الشرقية عن ارضية من الكلس المتعامدة مع جدار من الحجر غير المشذب تشذيباً دقيقاً والذي يرتفع مدماكين ويمتد في الجهات التي لم يكتمل الحفر فيها .
 - تم العثور على رصفه من الحجر المتوسط وغير المشذب فوق الارضية الكلسية والتي اشارت الى اعادة استخدام الموقع في الحقب المتواليه .
 - كشف عن عمق الطبقات التي تراكمت فوق القلعة الذي بلغ حوالي ثلاثة امتار ونصف قبل ان يتم الوصول الى الصخر الطبيعي وعثر فيها على الفخار الايوبي المملوكي .

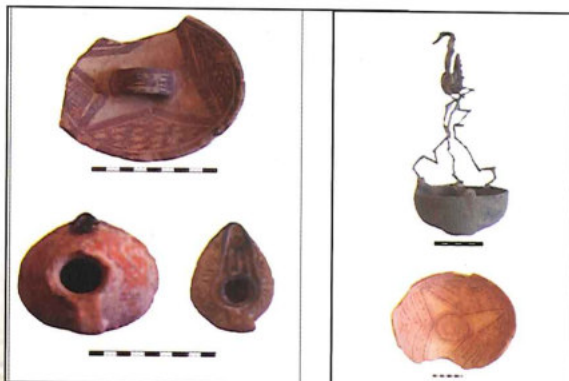


الغرفة الاولى جنوب من البرج

اسم المشروع: التنقيبات والترميم في الدير/ الفحيص
مشرفا المشروع: يزيد عليان، سعد الحديدي
تاريخ المشروع: ٦/١ - ٢٠٠٥/١١/٣٠
كلفة المشروع: ١٥ ألف دينار
عدد العمال: ٢٠ عاملاً
مصدر التمويل: موازنة الآثار العامة.

العمل والنتائج:

الكشف عن ثلاث غرف إلى الجنوب من البرج ذوات سقف برميلي.
 عثر على مصطبة حفر بجانبها حوض صغير ربما استخدم للطحن.
 عثر على كسر فخار وكسر زجاجية وخاتمين نحاسيين وقطع نقدية نحاسية تعود للعصر الأيوبي المملوكي.



لقى أخرى



اسم المشروع: صيانة وترميم آثار المغطس.

مشرف المشروع: م. رستم مكجيان .

تاريخ المشروع: من ٤/١٠ إلى ٣١/١٢/٢٠٠٥

كلفة المشروع: ٢٥ ألف دينار.

عدد العمال: ١٦ عاملاً.

مصدر التمويل: دائرة الآثار العامة.

ملخص أعمال الموسم السابق:

اشتمل العمل في موسم ٢٠٠٤ على أعمال الحفر المرافق للترميم في منطقة الجدار الشرقي وجدار درج التعميد الجنوبي، وبعد دراسة النتائج تم ترميم الجزء الشمالي من الجدار الشرقي. وكذلك بناء المظلة الخشبية فوق المصلى وطالت أعمال الصيانة الدورية جميع مواقع المغطس.

سير العمل

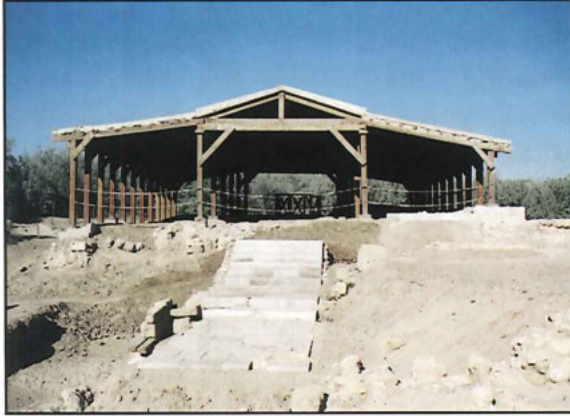
أعمال الترميم

١. ترميم الجزء الجنوبي من الجدار الشرقي:

بدأ موسم الترميم الفعلي في هذا الجدار عن طريق حفر منطقة الترميم بالكامل وحتى الوصول إلى أساسات الجدار الجنوبي للبازيليك، حيث تم عمل صبة نظافة وبعد ذلك وضع جسر حديد بطول ٣,٥م وبعرض ١,٥م وبارتفاع ٠,٢٥م ثم صب الإسمنت.

كان الهدف الفعلي لأعمال الترميم في الجدار الشرقي للبازيليك حماية أرضيتها بسبب فرق المنسوب واعطائه الشكل الأصلي، لذلك تم بناء أساس للجدار مشابه في المواد والتركييب للأساس الأصلي المستخدم في بناء الجدران في البازيليك، بناء مداميك الحجر الرملية الجديدة مع استعمال بعض الحجارة الأصلية التي عُثر عليها أثناء الحفر وحسب الارتفاع المناسب، وقد تم البناء في الوجهين الداخلي والخارجي للجدار. وللإشارة إلى أن الجدران كانت مرتفعة أكثر تم بناء مدامكين في الزاوية الجنوبية الشرقية وبشكل متدرج.

ما يميز الجدار الشرقي للبازيليك أنه لا يمتد بشكل كامل فعند الرواق الأوسط للبازيليك يوجد امتداد درج التعميد، حيث يرتبط الجدار الشرقي من الجهة الجنوبية مع الجدار الجنوبي لدرج التعميد. لذلك تم الربط بين الجدارين بشكل زاوية قائمة وبوجهين داخلي وخارجي.



البازيليك قبل الترميم



... بعد الترميم



تل النبي إلياس من الشمال الغربي

٢. ترميم جدار الدرج الجنوبي:

يعتبر ترميم الجدار الجنوبي لدرج التعميد من أهم الإنجازات التي تمت خلال هذا الموسم، كون ترميم الجدار تم باستعمال جميع الحجارة الأصلية في الجدار والتي تم الكشف عنها في موسم ٢٠٠٤م وعددها ١١٣ حجراً، بالإضافة إلى أن ترميم الجدار وضَّح وظيفة الدرج وارتباطه بالبازيليكا.

بعد الإنتهاء من أعمال دراسة الحجارة ورسمها وتصنيفها في جداول. بدأ العمل في ترميم الجدار، ومن المعلوم أن الجدار لم يبق منه ما يشير إلى سمكه أو ارتفاع المداميك، غير أنه وجدت كتلة من الحجار ملتصقة مع بعضها تتكون من الوجهين الداخلي والخارجي ومن مدامكين للوجه الداخلي وثلاثة مداميك للوجه الخارجي، بالإضافة إلى أساسه المكون من حجر السيل والملاط وكذلك الحشوة

بين الوجهين. ومن خلال الكتلة هذه تم الإستدلال على سمك الجدار البالغ ٨٠سم وعلى طريقة البناء وعلى أقصى ارتفاع يمكن التأكيد منه عند الترميم.

بدأ الترميم بإعادة أساس الكتلة الحجرية إلى مكانها مع تدعيمها ببعض حجر السيل والملاط الجديد لتقويتها. ثم إعادة بناء المداميك الأصلية وحسب ما كانت عليه وهي على الأرض عند سقوطها، وبعد الإنتهاء من المرحلة الأولى المتعلقة بتحديد سمك الجدار وارتفاع المداميك، تم تصنيف الحجارة الأصلية على المداميك وحسب الارتفاع المطلوب.

امتد العمل من منطقة البسطة الرخامية حتى الجدار الشرقي للبازيليكا، وكان يتم بناء أساس من حجر السيل والملاط على غرار الأساس الأصلي، ثم يتم بناء مداميك الجدار من الداخل والخارج.

كان يوجد بين الحجارة الأصلية للجدار عدد من الحجارة ذات الشكل المثلث والتي تشكل المدامك الأخير من الجدار وخاصة في منطقة الدرج، حيث يكون الجدار بشكل منحدر، وقد تم إعادة أربعة حجارة من هذا الشكل إلى مكانها المتوقع وعندها بلغ ارتفاع الجدار ٩٠سم.

أعمال الصيانة

تعتبر أعمال الصيانة والمتابعة الدورية لجميع المواقع في المغطس ضرورة ملحة نظراً للظروف المناخية والطبيعية في المنطقة من حرارة ورطوبة وارتفاع نسبة الملوحة في التربة وفي المياه الجوفية، وتأثيرها على المواد الهشة المستخدمة في البناء في الموقع.



اسم المشروع: مسح حقل داميا

مشرفو المشروع: سعد الحديدي، يزيد عليان، حسين الجراح

تاريخ المشروع: ٨/١ - ٢٠/٩/٢٠٠٥

كلفة المشروع: ٥ آلاف دينار

عدد العمال: ٥ عمال

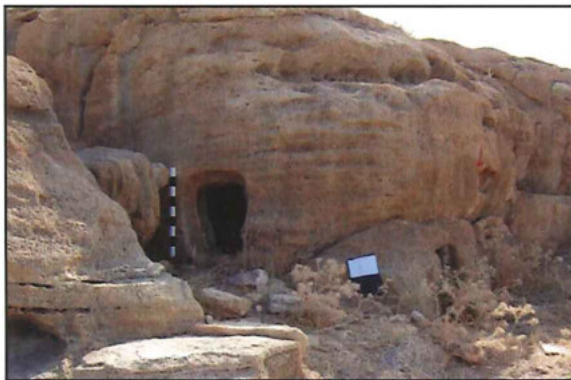
مصدر التمويل: شركة ترافكو.

العمل :

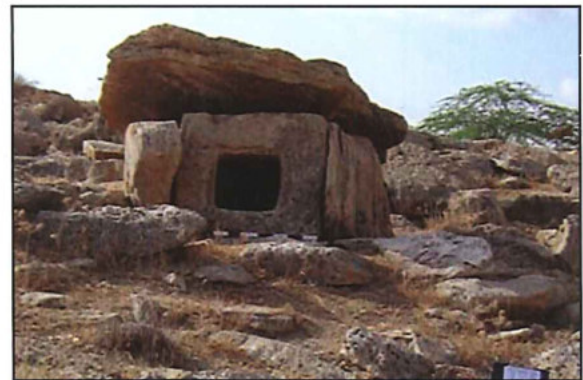
نتيجة النشاط المستمر لأعمال التعدين لشركة ترافكو في حقل داميا والتي اثرت على الانصاب الحجرية المتواجدة في المكان اضطرت دائرة الاثار الى إجراء مسح شامل ودارسة لتقييم الضرر الذي لحق بها.

العمل والنتائج:

كشفت اعمال المسح الاثري عن مجموعة من المظاهر الاثرية حيث تم رصد ما يزيد عن مائتين وسبعين معلماً اثرياً كان معظمها من الانصاب الحجرية (الدولمنز) وبعضها كهوف منحوتة بالصخر والبعض الآخر انصاب دائرية. تم توثيق جميع الانصاب والمعالم الاثرية في الموقع الذي تزيد مساحته عن ٦٠٠ دونم بالصور والمخططات والخرائط.



كهوف



انصاب حجرية



اسم المشروع : صيانة وتقوية وترميم آثار جبل القلعة/المقطع ١٩

مشرف المشروع : م. محمد الخطيب

تاريخ المشروع : ٤/١٠ - ٢٠/١٢/٢٠٠٥

كلفة المشروع : ٣٥ ألف دينار

عدد العمال : ٢٠ عاملا

مصدر التمويل : موازنة دائرة الآثار العامة

العمل والنتائج :-

جاءت خطة العمل لهذا الموسم ٢٠٠٥ لإتمام أعمال الصيانة والتقوية والترميم ، حيث جرت أعمال تقوية وترميم في المقطع (١٩) لمنشأة معمارية تعود للفترة الاسلامية المبكرة ، وهي بقايا غرف صغيرة مضافة للجدار الروماني وتشكل برج نصف دائري مبني من حجارة ضخمة ومتوسطه الحجم غير مشذبه ، ترتكز على طبقة ترابية مكشوفة ومطله نحو الشمال على الشارع الترابي يبلغ ارتفاع هذه الطبقة حوالي ٣,٥ م ، لذا تم في هذا الموسم اعمال تقوية وترميم ببناء جدار استنادي لدعم الطبقة الترابية من جزئين ، بينهما فراغ يقارب الستة امتار وذلك لاتاحة رؤية سور القلعة العائد للفترة العمونية ، الجزء الاول بطول ٣,٢٠م والثاني بطول ١٦ م ، ويرتكز الجدار على قاعدة تأسيسية من الحجارة الصوانية المدكوكة بالرمل والشيد بارتفاع ٣٠سم تعلوها طبقة من الاسمنت الابيض بسماكة ٥سم ، لتسهيل ارتكاز الحجارة التي استخدمت لبناء الجدار دون استخدام المونة (فكته مستقبلاً اذا دعت الحاجة لذلك دون ضرر) ، وبميلان بسيط نحو الداخل ، كما تم وضع حجارة غشيمه بين الجدار وبين الطبقة الترابية ، لتسهيل تصريف مياه الامطار وعمل قنوات على ارتفاعات مختلفة لهذا الغرض ، مع مراعاة عدم المساس بالجدران الاثرية المتواجدة في اسفل الطبقة الترابية .



... بعد الترميم



المنشأة الإسلامية قبل الترميم



اسم المشروع : تنقيبات جبل القلعة / مقطع « ٢٥ »

مشرف المشروع : حسام حجازين

تاريخ المشروع : ٢٠٠٥/٧/٣١ - ٤/١

كلفة المشروع : ٢٥ ألف دينار

عدد العمال : ٣٠ عاملاً

مصدر التمويل : موازنة دائرة الآثار العامة

العمل والنتائج :



لقى أثرية

يقع المقطع ٢٥ في الحد الفاصل تقريباً بين الجزء العلوي والسفلي لقلعة عمان ، وتحديداً شرق المعبد الروماني (هرقل) وشمال البوابة الدائرية (المطل) ، استمر العمل في هذا المقطع للموسمين (٢٠٠٤-٢٠٠٥) ، لأهمية ارتباطه بأهم ثلاثة معالم تاريخية :- البوابة الجنوبية (مقطع ١٥) ، البوابة الدائرية (مقطع ١٣) ، ومعبد هرقل الروماني.

وكشفت أعمال هذا الموسم عن أرض صخرية مقطوعة بشكل منتظم أمام الدرج المكتشف في الموسم السابق ، وتضم هذه الأرضية حوضاً وبئر ماء فوهته مربعة الشكل حفر بالصخر ويتصل الحوض مع البئر بقنوات صخرية ، ويقسم الحوض إلى قسمين : الأول (٢٥ × ٤٥ سم) وبعُمق (٧٥ سم) ، والثاني لم يكتمل التنقيب فيه . غطت حواف وأرضية الحوض بالقصارة البيضاء ، استعمل لخدمة المعبد والمصلين ، تم التوسع بمنطقة الحضر حيث أظهرت الطبقات العلوية استيطان من الفترة العثمانية عبارة عن بقايا لاساسات غرف سكنية قريبة جداً من السطح ، وفي الجهة الشرقية للحوض والبئر ظهرت رصفة من الكلس غير المشذب على مساحة المربع تبين حينها مستدير ورصف مدخلها بالحجارة الكلسية بشكل غير منتظم ، عُثر بداخل الغرف على طابون فخاري قطره (٩٠ سم) ، وبداخله بقايا رماد وأثار حرق و طابون صغير كامل ومستدير قطره (٥٠ سم) .



الطابون في الغرفة المستديرة

استخدمت الغرف المستديرة لأغراض الصناعة والطبخ ، لوجود الطوابين وعجينة الفخار ، وقطع من الحديد الخام تؤرخ للفترة الرومانية المتأخرة لوجود جره شبه كاملة بأرضية الغرفة وجزء من تمثال طيني ، واستمر استخدام الغرف لفترات لاحقة حيث عثر على جره فخارية مقطوعة الرقبه عليها زخارف وطلاء تعود للفترة المملوكية .



اسم المشروع: الصيانة والتنقيب في رجوم أبو نصير / الربط
 مشرف المشروع: أديب ابوشميس
 تاريخ المشروع: ٧/٢٠ - ٣١/١٠/٢٠٠٥
 تكلفة المشروع: ٨ آلاف دينار
 عدد العمال: ٢٣ عاملاً

وصف الموقع:

تعتبر خربة الربط واحدة من أفضل أماكن الاستقرار في الفترة العمونية المتأخرة (القرن السادس ق.م). يتمثل هذا الموقع بعدد من المباني ذات الحجارة الكبيرة والتي قدمت بدورها وحدات معمارية بحجم ضخم ميزت العمارة العمونية، تم تقوية وتثبيت الجدران المكتشفة بمواسم ٢٠٠٣/٢٠٠٤ باستخدام مونه مصنعة بعد نزع بقايا الطين الأصلي. كما نفذت أعمال تنقيب وتقوية للمبنى (رقم ٥) الذي ينفرد بوجوده وسط مباني الموقع. حيث كشفت أرضية المبنى وتبين أن هناك إعادة استخدام في العصر العثماني الذي أدى إلى إزالة البقايا الأثرية بكاملها من داخله، فقد عثر على كسرفخار مزجج من الداخل من (الفترة العثمانية المتأخرة) وثلاث كسر من فخار العصر الحديدي، وجزء من حجارة رصف الأرضية عند مدخل المبنى. رفعت الأعمدة الساقطة والتي أظهرت بوضوح أن المبنى يتكون من أربعة غرف، وأن الأعمدة كانت تتوسط حجارة الجدران الداخلية لتقويتها لحمل السقف المكون من طين وحجارة بسمك يقارب ٣٠سم يوضع فوق أغصان الشجر وقد استمر هذا الطراز من السقوف في قرانا التقليدية.



أحد الأنصاب - المنهر-

ظهرت العتبة العليا قرب المدخل، كما ظهرت العتبة السفلى التي يستند عليها إطار المدخل ومن الملاحظ أن هذه الحجارة (حجارة إطار المدخل) مقطوعة ومشغولة رغم أن كافة حجارة المبنى تكاد تكون حجارة طبيعية، وقد يقدم هذا العنصر المعماري ميزة مبتكرة في نهاية العصر الحديدي.

إن أعمال الصيانة وإعادة نصب الحجارة المتساقطة في المستقبل يوضح صورة المبنى ونظام تكامله مع الأبراج المحيطة وأماكن الإنتاج والبيئة للموقع الأثري، يقدم نموذجا لهذه الحضارة.



بوابة أحد المباني



اسم المشروع : ترميم قلعة ضبعه

مشرف المشروع : خليل حمدان

تاريخ المشروع : ٢٠/٥ - ٣٠/١١/٢٠٠٥

كلفة المشروع : ٢٥ ألف دينار

عدد العمال : ٣٠ عاملا

مصدر التمويل : وزارة التخطيط.

تركز الترميم في عدة مناطق :-



منظر عام للقلعة

١- الجدران : نزع الكحلة القديمة عن الجدران الداخلية والخارجية في الغرف والساحة الرئيسية ووضع بدلا منها كحلة جديدة بمواصفات هندسية وبنفس لون الحجارة.

٢- أكمل بناء الدرج الرئيسي الواصل بين الساحة الرئيسية والطابق الثاني والذي تم اعادة بنائه العام الماضي ونزعت الكحلة القديمة وأعيد تكحيله بالكامل من جميع الجهات ودعمت حجارة القاعدة بشكل جيد و الجزء العلوي منه لم يكتمل بنائه بعد.

٣- المدخل الرئيسي للقلعة : بلط بالكامل بإعادة حجارتها الأصلية، وأعيد بناء مقعدين حجريين كانا مدمرين بالكامل على يمين ويسار المدخل باستخدام حجارة من خارج القلعة لفقدان الحجارة الأصلية.

٤- تركيب بوابة حديدية لمدخل القلعة الرئيسي.

٥- تبليط كامل الساحة الرئيسية.

٦- ترميم فتحة البئر الرئيسية مع تبليطها بالحجارة.

٧- أعيد اغلاق بعض الفتحات الرئيسية الموجودة في اكثر من مكان في اسوار القلعة بسبب التخريب والعبث.

٨- ترميم بوابات الغرف وتدعيم قواعدها وأطرافها بالحجارة مع التكحيل من كافة الجوانب.



بوابة الغرفة B بعد الترميم



اسم المشروع: تأهيل الممرات القديمة في أم الرصاص

مشرفا المشروع: علي الخياط، عبدا لله البواريد.

تاريخ المشروع: ٦/٥ - ١٠/١/٢٠٠٥م.

كلفة المشروع: ١٥ ألف دينار.

عدد العمال: ٢٠ عاملاً.

مصدر التمويل: الموازنة العامة.

سير العمل والنتائج :-

في المواسم السابقة تم التركيز على ترميم الكنائس الموجودة في أم الرصاص وبعد أن أصبحت هذه الكنائس جاهزة للزيارة أصبح من الضروري العمل على فتح الممرات القديمة التي تربط الكنائس مع بعضها البعض ليتجول السائح بين العناصر المعمارية من كنائس وبيوت ومعاصر موجودة في الموقع. حيث تم إزالة الحجارة الكبيرة في الممرات بدءاً من مجمع القديس أسطفانس ومروراً بكنيسة القديس بول ووصولاً لكنيسة الطاؤوس حتى الساحة الموجودة أمام كنيسة الأسود والتي يتفرغ منها ممر باتجاه الشرق على طول الجدار الجنوبي للكنيسة ويتفرغ من الساحة كذلك ممر باتجاه الغرب وصولاً إلى كنيسة المدخر في الطرف الشمالي الغربي للحصن.



... بعد الصيانة



الممرات قبل الصيانة



اسم المشروع: صيانة وترميم قصر شبيب

مشرف المشروع: رومل غريب

تاريخ المشروع: ٦/١ - ٢٠٠٥/١٢/٣١

كلفة المشروع: (١٢٥٠٠٠) ألف دينار

عدد العمال: ١٧ عاملا

مصدر التمويل : موازنة / دائرة الآثار العامة

العمل والنتائج :-

بدأ العمل في قصر شبيب في العام ٢٠٠٤ بإزالة القنطرة الحديثة التي كانت تغطي جدران القصر وسقفه والبلاط الحديث الذي كان يغطي أرضيته. وقد جاء العمل في هذا الموسم استكمالاً للمواسم السابقة على النحو التالي :-

أ. التنقيب الأثري داخل القصر وفي خزان الماء :

- الخندق الأول :- يقع إلى يمين المدخل وبلغ طوله ٢٦٠ سم وعرضه ١٣ سم وعمقه ٦٢ سم، باتجاه شمال جنوب ، وكشفت التنقيبات عن رصفه حجرية من حجارة جيرية وصوانية صغيرة إلى متوسطة الحجم عليها طبقة سوداء عُثر في هذا الخندق على كميات كبيرة من الفخار وكسرتين من الفخار المزجج ، وعلى رحاحتين نحاسيتين، وبقايا حجر رحي صغير.

- الخندق الثاني :- يقع إلى يسار المدخل أمام الدرج المؤدي إلى الطابق الثاني ، طوله ١٦٠ سم وعرضه ١٥٣ سم وعمقه ٤٠ سم.

- كشفت التنقيبات عن درجة أخرى مما يشير إلى أن أرضية القصر لازالت تمتد للأسفل .

- الخندق الثالث :- يقع على طول الواجهة الجنوبية للقصر ويمتد بطول (٥٨) م وعرض ١٠٨ سم وعمق ٦٩ سم ويتجه شرق غرب. كشفت التنقيبات عن نفس التسلسل الطبقي الذي عُثر عليه في الخندق الأول وعن امتداد لمداك آخر للجدار ، وعُثر على كميات كبيرة من الفخار وكسر عظميه.

- الخندق الرابع :- يقابل مدخل البناء ويتجه شمال جنوب بطول ٢٠٦ سم وعرض ١٠٨ سم وارتفاع ٣٣ سم.



أحد الأقبية قبل الترميم



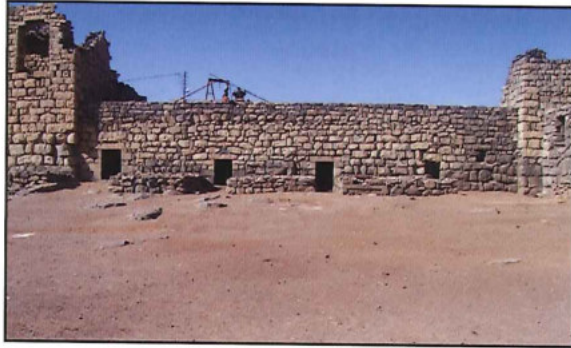
أثناء الترميم



أعمال الصيانة لجدران القصر من الخارج

كذلك تم في هذا الموسم تنظيف خزان الماء الواقع أمام مدخل القصر حيث تبين انه يتكون من قسمين الأول حفر في الصخر الطبيعي والثاني من حجارة مشابهة لحجارة القصر.

- ب- أعمال الصيانة والترميم للبناء من الداخل والخارج:-
إزالة الكحلة من بين حجارة البناء من اجل استبدالها بكحله جديدة تعيد للبناء طابعه الأثري القديم . حيث تم :-
١- صيانة وترميم الواجهة الشرقية التي يقع فيها المدخل بأرتفاع ٨ مداмик .
٢- صيانة وترميم الطلاقات في الواجهتين الشمالية والجنوبية ووضع شبك حماية لهما .
٣- صيانة وترميم جميع واجهات البناء.
- ج. أعمال الصيانة والتنظيف لمرافق القصر غير الأثرية :-
١- إزالة الطمم من الساحة المحيطة بالبناء .
٢- قصارة الجدار الخارجي المحيط بالساحة من الداخل والخارج ورشه بماده ملونه تتلاءم وطبيعة البناء الأثرية.

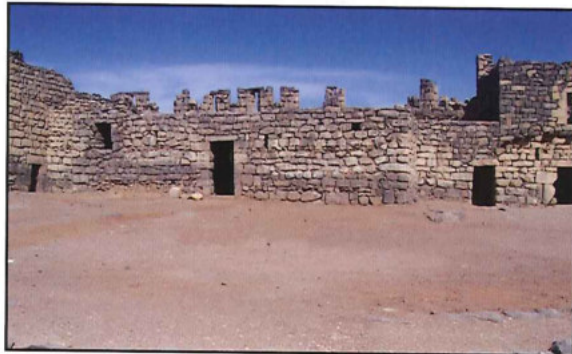


الجدار الغربي بعد الترميم

اسم المشروع : صيانة و ترميم قلعة الأزرق
تاريخ المشروع : ٧/٢٣ - ٢٠٠٥/١٢/٣١ م
مشرفا المشروع : سالم الذياب، يونس المومني
كلفة المشروع : ٢٥ الف دينار
عدد العمال : ٣٥ عاملا
مصدر التمويل: وزارة التخطيط.

العمل والنتائج:

- ١- صيانة وترميم الجدار الشمالي الغربي من الداخل والخارج بطول ٢٣م وارتفاع ٤,٥م.
- ٢- صيانة وترميم البرج الشمالي الغربي بأرتفاع ٤,٥م.
- ٣- صيانة وترميم الإسطلب الشمالي الغربي وإعداده ليكون نواة لمتحف تعرض فيه المكتشفات الأثرية من القلعة والمنطقة المحيطة بها.



واجهة المتحف بعد الترميم



اسم المشروع :	تنقيب وترميم وصيانة موقع المسرات
مشرف المشروع :	رومل غريب
تاريخ المشروع :	من ٦/١ - ٢٠٠٥/١٠/٠١
كلفة المشروع :	٦٦٦٠ دينار
عدد العمال :	١٥ عاملاً
مصدر التمويل :	موازنة دائرة الآثار العامة

العمل و النتائج :-

تركز العمل في هذا الموسم في المنطقة B ونقب في المربعات F7،F8،G7،G8 والتي تقع جنوب الكنيسة، وقد كان الهدف من العمل في هذه المربعات يتمثل بالكشف عن أية بقايا معمارية أو أثرية ترتبط بالكنيسة . عُثر على غرفة طويلة في المربعين F8،F7 وقد تبين بان سقف هذه الغرفة كان يرتفع فوق ثلاثة عقود، وبعد إزالة الجزء الفاصل ما بين المربع F8 و F7 أن الجدار رقم ٢ في المربع F7 قد بني في فترة لاحقه بين كتفي العقد الثالث للغرفة من اجل تصغيرها ، حيث فصل الجزء الجنوبي من الغرفة عن جزئها الشمالي . وقد كشف عن بوابة تقع في الجدار الغربي من المربع F8 تعود على ما يبدو إلى غرفه مجاوره من الناحية الغربية.

بعد الانتهاء من إزالة الأعشاب الجافة والطعم المتراكم في الموقع، تم تحديد ١٢ بوابة أغلقت بعضها في فترات لاحقة مما يشير إلى استمرارية الاستقرار في الموقع ما بعد الفترة البيزنطية .



أرضية الغرفة بعد التنقيب



أحد البوابات بعد الترميم



اسم المشروع: صيانة وترميم «القصر المحترق» / مادبا

مشرف المشروع: مدرسة مادبا للفسيفساء

تاريخ المشروع: ٣/١٤ - ٢٨/٥/٢٠٠٥

كلفة المشروع: ١٥٠ دينار

عدد الفنيين: اثنان

مصدر التمويل: موازنة دائرة الآثار العامة

مراحل العمل:



تنظيف أرضيات فسيفسائية

- ١- تنظيف السند الأساسي وفرز الحجارة المتناثرة من حيث الشكل واللون والحجم.
- ٢- إعادة حجارة الوجه بخلطة مؤقتة ثم بخلطة دائمة.
- ٣- معالجة الفجوات بعمل ملاط يتوافق من ناحية جمالية مع الوجه.
- ٤- تنظيف ميكانيكي لإزالة التراكمات والترسبات السطحية وبقع الدهان.
- ٥- معالجة نمو الأعشاب والطحالب.
- ٦- إزالة طبقات الاسمنت واستبدالها بطبقة من الملاط يتوافق مع الخصائص الطبيعية للملاط القديم.
- ٧- تدعيم للأطراف الفسيفسائية والفجوات.
- ٨- معالجة الانتفاخات في الأرضية بتقنيات الحقن.

اسم المشروع: مشروع الصيانة والترميم للأرضيات الفسيفسائية لقصر القسطل

مشرف المشروع: كاترين الحمارنة

تاريخ المشروع: ٥/٢٩ - ٨/٦/٢٠٠٥

كلفة المشروع: ٥٧ دينار

عدد العاملين: أربعة فنيين

مصدر التمويل: موازنة دائرة الآثار العامة.



تثبيت حواف الأرضية

العمل :-

- ١- إزالة الأعشاب التنامية على الأرضية وبين الحجارة.
- ٢- إزالة الملاط القديم المفكك، والملاط الأسمنتي.
- ٣- تثبيت حواف الأرضيات وتدعيمها وإعادة الحجارة الفسيفسائية إلى مكانها.
- ٤- تنظيف ميكانيكي لإزالة الترسبات السطحية.
- ٥- تغطية الفسيفساء بالرمل حسب الأصول



اسم المشروع: الصيانة والترميم لأرضية كنيسة «كوزموس ودميانوس» / جرش.
 مشرفا المشروع: كاترين حمارنة، عبد المجيد مجلي
 تاريخ المشروع: المرحلة الأولى ٢٠٠٥/٥/١٨-٥/٢
 المرحلة الثانية ٢٠٠٥/٧/٢١-٦/٢٨
 عدد العمال: ستة فنيين/ مدرسة الفسيفساء.

العمل:

أعمال الصيانة الخاصة بالكنيسة :-

- ١- التنظيف الميكانيكي والكيميائي للجدران ولقواعد الأعمدة لإزالة التراكبات الطبيعية والطحالب والأعشاب النامية.
 - ٢- إجراء مجسات في الممر المحاذي للصحن الشمالي، وإزالة التربة المتراكمة والأعشاب النامية.
 - ٣- رفع الأعمدة وقواعد الأعمدة في الصحن الجنوبي.
- أعمال الصيانة والترميم للأرضية الفسيفسائية:
- ١- إزالة التراكبات عن سطح الأرضية الفسيفسائية
 - ٢- إزالة الأعشاب والجذور النامية بين الحجارة الفسيفسائية
 - ٣- التنظيف الميكانيكي والكيميائي.
 - ٤- تدعيم للأرضية الفسيفسائية.
 - ٥- إزالة الاسمنت الموجود على سطح الأرضية الفسيفسائية.
 - ٦- معالجة بعض الفجوات بالملاط و الحقن.



كنيسة كوزموس ودميانوس

اسم المشروع: صيانة وترميم الأرضيات الفسيفسائية لكنيسة سيريوس/ واسطفانوس/ أم الرصاص.

مشرف المشروع: كاترين الحمارنة

تاريخ المشروع: ٢٠٠٥/٤/٢٧-٤/١٣

كلفة المشروع: ٧٥ دينار

عدد العمال : ٣ فنيين

مصدر التمويل: موازنة دائرة الآثار العامة

العمل:

- ١- معالجة الفجوات في الأرضية بحقنها بالملاط.
- ٢- عمل حواف من الملاط لكافة الأرضية.
- ٣- تنظيف الأرضيات ميكانيكياً وكيميائياً لإزالة التراكبات الطبيعية والطحالب.
- ٤- تثبيت الحجارة المفككة.



معالجة الفجوات بحقنها بالملاط



اسم المشروع: صيانة و ترميم الأرضيات الفسيفسائية قبو زيوس
مشرف المشروع: مدرسة مادبا للفسيفساء
تاريخ المشروع: ١٠/١٢ - ٢٢/١٢/٢٠٠٥
كلفة المشروع: ١٣٤٧ دينار
عدد العاملين: ٥ فنيين
مصدر التمويل: المعهد الفرنسي للشرق الأوسط و دائرة الآثار العامة.



الأرضية الفسيفسائية

أعمال الترميم:

- ١- توثيق الأرضية الفسيفسائية بالتصوير والرسم.
- ٢- تنظيف ميكانيكي وكيميائي لسطح الفسيفساء للتخفيف من الترسبات السطحية.
- ٣- إزالة النباتات النامية على السطح.
- ٤- إزالة الترميمات السابقة.
- ٥- معالجة الأطراف المفككة بعمل ملاط حواف جديد.
- ٦- إعادة الحجارة المفككة إلى مكانها و تثبيتها.
- ٧- معالجة الفجوات في الأرضية، و ذلك بحضر طبقات الملاط، ووضع طبقة ملاط جديدة، ثم طبقة من الفايبرجلاس وملاط جديد.
- ٨- معالجة الانتفاخات الموجودة بطريقة الحقن بالجير و بودرة الرخام.
- ٩- معالجة التفكك الحاصل بين الطبقات بتقنية الحقن بالجير و بودرة الرخام.
- ١٠- حقن الأرضية في المناطق اللازمة بثلاثي إيثيل السيليكات.
- ١١- تغطية الفسيفساء بمادة البرالويد لحمايتها من الرطوبة.

اسم المشروع: صيانة و ترميم فسيفساء كنيسة يوحنا / المخيط.
مشرفا المشروع: معهد الآباء الفرنسيين و مدرسة مادبا للفسيفساء.
تاريخ المشروع: ٢٢/٥ - ٣٠/٧/٢٠٠٥



تجميع الأرضية وتوثيقها

أعمال الترميم:

- ١- توثيق الفسيفساء بالتصوير وترقيم القطع الفسيفسائية.
- ٢- تحضير مخطط الاقتلاع.
- ٣- تنظيف سطح الفسيفساء بإزالة طبقة الشمع والترسبات.
- ٤- إلصاق طبقتي قماش على سطح الفسيفساء بواسطة غراء خاص.
- ٥- إزالة السند القديم.
- ٦- تجميع الأرضية و توثيقها وتخزين القطع على ألواح خشبية لحين بدء المرحلة الثانية، حيث سيتم صب اللوحات على سند جديد من مادة الإيرولام.



اسم المشروع : ترميم وصيانة قلعة الكرك.

مشرف المشروع: م. نوفل عجارمه.

تاريخ المشروع : ١/١-٣١/١٢/٢٠٠٥

كلفة المشروع: ٥٠ ألف دينار.

عدد العمال : ١٧ عاملا.

مصدر التمويل: موازنة دائرة الاثار العامة.

• استمرار الأعمال الصيانة والترميم في قلعة الكرك تركز العمل في هذا الموسم على استكمال ترميم الواجهات الشرقية والجنوبية و الممرات الداخلية وترميم الأقبية .

اولا- الواجهة الشرقية :

استكمال إعادة بناء الواجهة بعد أن تم رفع منسوبها (٣,٢٥م) حيث تم إنجاز مايلي:

- صب خرسانة ودبش في جسم الواجهة
- تلبيس حجر بناء للواجهة من الداخل والخارج .
- تكحيل حلول حجارة البناء.

ثانيا-الواجهة الجنوبية: تشمل الجزء القائم للواجهة من الداخل والخارج وواجهة القبور رقم (٣) حيث انجز مايلي:

- ١- تثبيت الواجهة من الداخل من خلال :
 - تلبيس حجر بناء بديل لحجر البناء المنهار.
 - صب خرسانة ودبش في جسم الواجهة.
 - تكحيل حجر البناء الذي تم تلبيسه .

٢- استكمال إعادة بناء واجهة القبو رقم (٣) الخارجية من خلال:

- صب خرسانة ودبش.
- تلبيس حجر بناء للواجهة من الخارج .
- تكحيل الواجهة من الخارج .

ثالثا- الأقبية الداخلية رقم (٣,٢١)

- إزالة الطمم ومخلفات المواد المنهارة من داخل الأقبية.
- إعادة بناء الأجزاء المنهارة داخل الأقبية .
- تكحيل حلول حجارة البناء للواجهات الداخلية.

رابعا: عقود الأقبية

- يشمل سقف عقود الأقبية الثلاث والممرات التي تصل بينها حيث تم ترميم وصيانة السقف كالتالي :
- إزالة الطمم المتراكم على العقود



الواجهة الجنوبية للبرج الشرقي قبل الترميم



... بعد الترميم



- تلبيس حجر بناء لبقايا الجدران أعلى عقود الأقبية
- حقن ما عدده (١٥) شوال شيد في رصفة العقود
- صب خرسانة ودبش فوق عقود الأقبية للحد من امتصاص مياه الأمطار.
- تبليط سقف العقود .
- تكحيل سقف العقود .

• البرج الشرقي

تركز العمل على معالجة الانهيارات وتآكل المواد الرابطة وبعض حجارة البناء في الواجهات الشرقية والجنوبية والغربية للبرج وبذلك اكتمل ترميم الواجهات الخارجية وعلى النحو التالي:

اولا- الواجهة الشرقية :

- إزالة مخلفات الانهيارات .
- صب خرسانة ودبش في الجزء المنهار.
- تلبيس حجر بناء حوري.
- تكحيل حلول حجارة البناء التي تأكلت أو تفككت موادها الرابطة.

ثانيا- الواجهة الجنوبية :

- معالجة انهيار بعض حجارة البناء .
- صب خرسانة ودبش في الأجزاء الداخلية المتآكلة

- تلبيس حجر بناء حوري

- تكحيل حلول حجارة البناء التي تأكلت أو تفككت موادها الرابطة

ثالثا- الواجهة الغربية :

- معالجة تآكل المواد الرابطة وبعض حجارة البناء من خلال:
- فك حجارة البناء المتآكلة وتلبيس حجر بناء حوري مفجر مكانها .

- تكحيل حلول حجارة البناء التي تأكلت أو تفككت موادها الرابطة.



الواجهة الشرقية للزاوية الجنوبية الشرقية قبل الترميم



... بعد الترميم



اسم المشروع: صيانة وترميم طواحين السكر
مشرفا المشروع: م. عامر القمش، عماد الضروس
كلفة المشروع: ٢٠ ألف دينار.
تاريخ المشروع: ٦/١ - ٢٠٠٥/١١/٣٠
عدد العمال: ٣٠ عاملا.
مصدر التمويل: وزارة التخطيط.

استكمالاً لأعمال الصيانة والترميم تم إنجاز :-

- ١- ترميم الواجهة الشرقية لمبنى تكرير السكر وبناء الجزء المتهدم بطول (٥) م وارتفاع (٢,٣٥) م، وتكحيل كامل الواجهة بنفس الارتفاع و بطول (٨,٢٠) م.
- ٢- إزالة الطمم عن الواجهة الغربية لمبنى تكرير السكر المتهدمة كلياً وإعادة بنائها بطول (٧,٧) م وارتفاع (١,٨٥) م.
- ٣- بناء الجزء المتهدم من السقف نصف البرميلي بمساحة (١٦) م^٢ والمبني بواسطة الريش الحجرية وتكحيل كامل السقف والجوانب بمساحة (٤٠) م^٢ ورصف وتبليط سطح البناء لتقوية ومنع تسرب مياه الأنهار داخله بمساحة (٤٠) م^٢.
- ٤- إزالة الطمم المتراكم على الواجهة الغربية للقوس الغربي وعلى الجدار الحامل لامتداد القناة نحو الغرب من الجهة الشمالية باتجاه بركة تصريف المياه الزائدة وبناء مداмик فوقها بطول (١٢) م.
- ٥- تسييج الموقع بطول (٣٥٠) م وعمل بوابة رئيسية في الجهة الشرقية بعرض (٢,٥) م وبناء غرفة حراسة.
- ٦- ترميم الطوب الطيني القائم فوق الزاوية الشرقية من الواجهة الجنوبية وبناء امتدادها على طول الواجهة الجنوبية وفوق بوابتها بطول (٧) م وارتفاع تسعة مداмик، إضافة الى ترميم العديد من المباني والجدران المستخدم فيها الطوب الطيني.



... بعد الترميم



مبنى تكرير السكر قبل الترميم



اسم المشروع : التنقيب في خربة الرشادية

مشرف المشروع : رائد الربحيات

تاريخ المشروع : ٦/٥ - ٣٠/٩/٢٠٠٥ م

كلفة المشروع : ٢٠ ألف دينار

عدد العمال : ٣٥ عاملا

مصدر التمويل : وزارة التخطيط.

جاءت اعمال هذا الموسم استكمالاً لأعمال المواسم السابقة وتركز العمل في الجهتين الشرقية والغربية الشمالية من الموقع، وكشفت اعمال التنقيب عن:-

- ١- معصرة زيتون ومصاف لتكرير الزيت تعود للفترة البيزنطية.
- ٢- جدار بامتداد شرق غرب يتصل بجدار الكنيسة وهو جزء من جدار يحيط بالمعصرة.
- ٣- كشف في الجهة الشمالية عن بئر في وسطه مصفاة وقنوات منحوتة بالصخر.
- ٤- مجمع سكني يتألف من سبع غرف يبلغ ارتفاع الجدران ١م في الجهة الشمالية الغربية أرخت للفترة البيزنطية.
- ٥- عُثر على عملة فضية عثمانية، وقطعتي نقد ذهبية تعود للملكة فكتوريا ١٨٧١م.
- ٦- كسر من الفخار تعود للفترات البيزنطية، والأموية، والأيوبية، والمملوكية.
- ٧- هاون حجري داخل البئر يعود للفترة البيزنطية.



حوض المعصرة



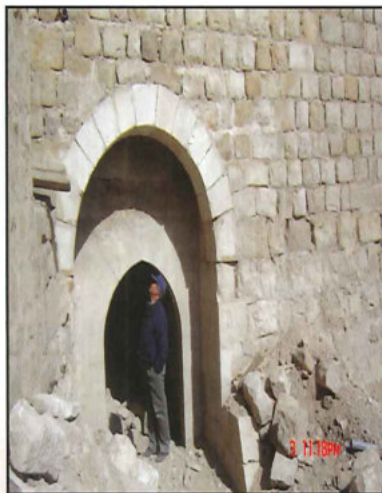
كنيسة الرشادية



الجدار الجنوبي العلوي قبل الترميم



... بعد الترميم



قوس المدخل الجنوبي بعد الترميم

اسم المشروع: ترميم قلعة الشوبك

مشرفو المشروع: نبيل عديلات، صدقي الحامد، محمود عزام.

تاريخ المشروع: ١/١ - ٢٠٠٥/١٢/٣١

كلفة المشروع: ٣٠ ألف دينار

عدد العمال: ١٦ عاملا

مصدر التمويل: موازنة دائرة الآثار.

مشروع صيانة وترميم قلعة الشوبك من المشاريع المستمرة في دائرة الآثار، واستكمالا لأعمال الترميم في المواسم السابقة تركز العمل في هذا الموسم في المنطقة الواقعة خلف الجدار R12 من الجهة الغربية حيث تم إنجاز مايلي:-

العمل والنتائج:-

- ١- تجريف وإزالة طمم، من داخل الأقبية C1, C2, C3, C4 والممرات المكتشفة حديثا V1 ومن الموقع A1 حيث أزيل ما حجمه (٩٢٠)م^٣.
- ٢- فك وإزالة البناء العشوائي في الواجهتين الجنوبية والجنوبية الغربية للجدار R12 ما مساحته (٥٠)م^٢ وتم فرز الحجارة ودبش تمهيدا لاعادة استخدامها في أعمال الترميم اللاحقة وحسب الحاجة.
- ٣- إعادة بناء الواجهة الخارجية للجدار الجنوبي العلوي (R12) حيث تم بناء ما مساحته (٦٠)م^٢ بالحجر الجيري المناسب.
- ٤- إعادة بناء الأجزاء الداخلية من البناء (المجاور للكنيسة والجدار الداخلي للأقبية) منها وإعادة بناء فتحة طلاقة السهام في القبو (C4) من الجهة الجنوبية وإعادة بناء قوس طلاقة الاسهم.
- ٥- إعادة بناء وترميم سقف الأقبية C1 + C4 بالحجر الجيري المناسب على شكل عقد مخموس وبنفس الشكل القديم لعقد القبو الأصلي.
- ٦- إعادة بناء الجدار الجنوبي الداخلي للكنيسة الصغيرة بمساحة ٢م^٢.
- ٧- صب خرسانة ودبش بحجم ٣م^{٥٤} خلف البناء بمواقع مختلفة.
- ٨- إعادة تركيب وبناء القوس للبوابة الجنوبية.
- ٩- تنظيف حلول الحجر بما مساحته ٢م^{٩٩} في جدران وسطح الكنيسة الجنوبي.
- ١٠- تبليط سطح الكنيسة بالحجر الجيري وحماية سقف الكنيسة من مياه الأمطار وتأمين مصارف للمياه حيث تم تبليط ٢م^{٧٥}.
- ١١- تكحيل ما مساحته ٢م^{٩٩} من واجهات جدران الكنيسة.
- ١٢- دق وتجهيز حجر بناء لما مساحته ٢م^{٢٣٨} وذلك من الحجارة المتناثرة في القلعة والحجارة التي تم فرزها من الطم تمهيدا لاستخدامها في أعمال إعادة البناء المختلفة.
- ١٣- فرز حجر بناء ودبش من الطم المزال بحجم ٣م^{٧٤}.
- ١٤- فك حجر بناء في عقد إحدى البوابات الداخلية للقلعة بالتعاون مع فريق جامعة فلورنسا الإيطالية حيث إن درجة ميلان البوابة كانت تشكل خطرا على سلامة الزوار وتم ترقيم حجارة البوابة وتوثيقها بالصور.

اسم المشروع: ترميم معسكر أنرح.

مشرف المشروع: هاني الفلاحات.

تاريخ المشروع: ٦/١ - ٢٠٠٥/١٢/٣١

كلفة المشروع: ٤٠ ألف دينار.

عدد العمال: ٤٥ عاملا

مصدر التمويل: وزارة التخطيط.

العمل والنتائج:



صورة جوية للمعسكر

- ١- ترميم البرج الأوسط الواقع على يمين البوابة الرئيسية الغربية بارتفاع السور الملاصق للبرج.
- ٢- تنظيف البرج الركني الغربي من الطمم، وعزل حجراته لغايات الترميم
- ٣- تنظيف محيط البرج من الأتربة والحجارة المتساقطة من أسقف وجدران البرج نفسه.
- ٤- تنظيف محيط الكنيسة البيزنطية وترميم كامل جدارها الخارجي.
- ٥- ترميم المداميك السفلية في حنية الكنيسة، إضافة الى ترميم مقاعد الجوقة والتي تعرضت للعبث.
- ٦- تنظيف الرواق الأيسر وصيانة القصارة والجدران الداخلية للكنيسة.
- ٧- تسييج الموقع: تثبيت الزوايا الحديدية على ٨٠% من محيط الموقع البالغ ١٣٦٠ م، كما تم تثبيت حوالي ٤٠٠ م شبك في الجهتين الشرقية والغربية، على ان يتم استكمال التسييج في الموسم القادم.



حنية الكنيسة بعد الترميم

ابرز المكتشفات أثناء مراحل العمل في هذا الموسم:

- ٨- عثر على نقش لاتيني يؤرخ للمعسكر وفترة الإنشاء، والفرقة التي قامت بالبناء والغاية من ذلك.
- ٩- عثر على كتابه عربيه بالحبر على قصارة الجدار الداخلي أمام محراب الرواق الأيسر في الكنيسة.
- ١٠- عثر على جزء من كتابة يونانية على شاهد قبر لإمرأه أمام محراب الرواق الأيسر في الكنيسة.
- ١١- عثر على بقايا أعمدة في صحن الكنيسة يبدو أنها أحضرت من المعسكر الروماني واستخدمت لحمل سقف الكنيسة.



قبل الترميم

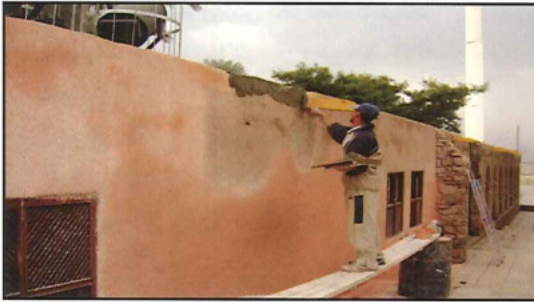
اسم المشروع: ترميم دار الإمارة/ ايلة الإسلامية
مشرف المشروع: سوسن الفاخري
تاريخ المشروع: ٧/١ - ٢٠٠٥/٩/٣١
كلفة المشروع: ١٣ الف دينار.
عدد العمال: ٢٥ عاملاً.
مصدر التمويل: الموازنة العامة.

العمل والنتائج:

- ١- تحديد الجدران التي تحتاج الى صيانة.
- ٢- تكحيل المبنى بالكامل للمحافظة عليه من العوامل الجوية وملوحة التربة خاصة ان التربة رملية تتفكك بسرعة وسريعة الامتصاص.
- ٣- ترميم أطراف الجدران المطلة على الوادي خاصة ان هذه المنطقة معرضة دوماً للانجراف بسبب المياه القادمة من وادي عربة.
- ٤- إزالة الأشجار وتنظيف مجرى الوادي من الحجارة للحد من تجمع مياه الأمطار التي تؤثر على جدران الموقع.



بعد الترميم



واجهة المتحف أثناء الترميم

اسم المشروع :- صيانة وترميم متحف العقبة
مشرف المشروع: سوسن الفاخري.
تاريخ المشروع: ٥/٢ - ٢٠٠٥/١٢/٣١
كلفة المشروع: ١٠ آلاف دينار.
عدد العمال : ١٠ عمال
مصدر التمويل : موازنة دائرة الآثار العامة.

العمل والنتائج :

- ١- حُفر خندق محاذي للواجه الجنوبية بعمق (١ م) ثم وضعت حجارة صغيرة وحصى لتعمل على تخفيض المياه المتسربة منه داخل الجدران بالإضافة إلى إزالة القسارة الاسمنتية من على الجدار وتكحيلها .
- ٢- رش الواجهتين الشرقية والشمالية بالشبريز وإعادة قسارة بعض الأجزاء وإصلاح الشبابيك وعلب كوابل الكهرباء .
- ٣- إزالة القصاره من الجدران الداخلية في المتحف وعلى ارتفاع (٧٠ سم) وكشف حجر البناء الغرانيتي ومن ثم تكليله .
- ٤- إزالة الأرضيات البلاستيكية وصيانة البلاط الأصلي .
- ٥- تاهيل احد قاعات المتحف وصيانتها ليعرض فيها قطع من الحميمة .



... بعد الترميم



الخزان قبل الترميم



... بعد الترميم

- اسم المشروع : ترميم الخزان المائي في الحميمة .
مشرف المشروع: سوسن الفاخري.
تاريخ المشروع : ٦/١ - ٣٠/١٠/٢٠٠٥
كلفة المشروع: ٣٠ ألف دينار.
عدد العمال : ٥٧ عاملاً.
مصدر التمويل: وزارة التخطيط.

العمل والنتائج

- ١- تصوير وتوثيق منطقة العمل.
- ٢- تنظيف أعلى الخزان والمنطقة المحيطة به وعمل ممر محاط بالحجارة وتحديد معالمه.
- ٣- كشف الخزان من الخارج ورفع الطمم من داخله.
- ٤- تكحيل وتقوية الأقواس من الداخل والخارج.
- ٥- تنظيف القنوات المؤدية إلى الخزان والمحيطة به ومن ثم صيانتها وتكحيلها.
- ٦- تنظيف المنطقة المحيطة بالخزان وعمل ممرات.



قبل التشبيك



بعد التشبيك

- اسم المشروع: تسييج النظام المائي المحيط بموقع حجيرة الغزلان
مشرف المشروع: سوسن الفاخري
تاريخ المشروع :- ١٠/١ - ٣١/١٠/٢٠٠٥
تكلفة المشروع :- ثلاثة آلاف دينار
عدد العمال :- ١٧ عاملاً
مصدر التمويل: موازنة دائرة الأتار العامة.

العمل والنتائج :-

- ١- للحفاظ على موقع حجيرة الغزلان الأثري خاصة المنطقة المحيطة به والتي يوجد فيها النظام المائي الذي كان يغذي الموقع بالمياه فقد تم وضع أسلاك شائكة بطول ٥٢٨ م، بالإضافة إلى تنظيف الموقع من الأعشاب.



نشاطات دائرة الآثار العامة معارض / ندوات / مؤتمرات / برامج تدريبية.

معارض

معرض " وجوه من الشرق " عشرة آلاف سنة من الفن والحضارة في الأردن الذي افتتحه في برلين بتاريخ ١٨ تشرين الثاني ٢٠٠٤ جلالة الملك عبدالله الثاني ابن الحسين المعظم و جلالة الملكة رانيا العبدالله ورئيس جمهورية المانيا الاتحادية هورست كوهلر وعقيلته واستمر حتى التاسع من كانون الثاني ٢٠٠٥ ثم انتقل المعرض الى بون في الثامن من نيسان واستمر حتى ٢١\٨\٢٠٠٥ عرض فيه ٧٠٠ قطعة اثرية.



جلالة الملك عبد الله الثاني و جلالة الملكة رانيا العبدالله والرئيسي الألماني وعقيلته في افتتاح معرض برلين

في مجال نشر الثقافة الاثرية ونتائج التنقيبات والمسوحات قامت الدائرة بإصدار المطبوعات التالية :

- حولية دائرة الآثار العامة- العدد ٤٩.
- مجلة آثار العدد الثامن (عدد خاص معارض ومتاحف).
- شاركت الدائرة بعدد من الندوات والمؤتمرات الدولية في مجال الحفاظ على الآثار وحمايتها.

محاضرات

ضمن نشاط الدائرة الثقافي رعت الدائرة عددا من المحاضرات قدمها مختصون وباحثون في الآثار.

**التدريب والتأهيل.**

استكمالا لبرنامج التدريب والتأهيل الذي بدأته الدائرة وتطبيقا لإستراتيجية الدائرة الهادفة لرفع كفاءة كادر موظفيها وإكسابهم الخبرات العلمية في مجال المحافظة على التراث الأثري و ضمن الخطة المرسومة لهذه الغاية.

قامت الدائرة بإلحاق موظفيها بالدورات التالية:-

- ١- دورة في إدارة المواقع الأثرية حضرها ستة من موظفي الدائرة عقدت في كل من سوريا ولبنان بتمويل من Iccrom و(برنامج آثار).
- ٢- دورة في التوثيق المتحفي الإلكتروني عقدت في عمان بتمويل من اليونيسكو حضرها خمسة عشر موظفا
- ٣- دورات في الحاسوب (ICDL).
- ٤- دورات في نظم المعلومات الجغرافية حضرها احد عشر موظفاً عقدت في دائرة الآثار العامة بتمويل من السفارة الفرنسية.
- ٥ دوره في علم المتاحف عقدت في فرنسا بتمويل من الحكومة الفرنسية.



توثيق عرى التعاون مع الدول العربية والصديقة في مجال التدريب والتنقيب

التعاون الدولي

المشاريع الأوروبية المتوسطة

١- مشروع سترابون شراكة أوروبية متوسطة (٢٠٠٢- ٢٠٠٥) شاركت به ١٢ دولة أوروبية عربية وهو نظام معلوماتي وإعلامي متعدد اللغات لتوثيق التراث المحلي وخدمة السياحة في دول حوض المتوسط وتم اختيار مدينتي جرش وأم الجمال الأثريتين من الأردن لعرضهما على الموقع الإلكتروني للمشروع.

وهو أول مشروع تدريبي بالتعاون مع الأوروبيين. نتج عنه إضافة إلى تدريب موظفي دائرة الآثار على توثيق المواقع الأثرية. إنشاء مركز ياقوت للمعلوماتية. المجهز بأحدث الكمبيوترات ومرفقاتها لمواكبة التطور في تكنولوجيا المعلومات إذ سيكون قاعدة لإطلاق موقع الدائرة الإلكتروني.

٢- متحف اكتشاف الفن الإسلامي نظام معلوماتي وإعلامي متعدد اللغات لإبراز الفن الإسلامي بموله برنامج الشراكة الأوروبية المتوسطة (٢٠٠٤-٢٠٠٧).

٣- قنطرة(بنك معلومات) لإبراز تراث دول حوض البحر الأبيض المتوسط بموله برنامج شراكة اورو متوسطة (٢٠٠٥- ٢٠٠٧) تم اختيار ١٠٠ قطعة أثرية لهذا المشروع. وسوف تُظهر قاعدة البيانات التداخل الثقافي بين الشرق والغرب.

٤- أوبرا - دراسة أساسيات المباني الأثرية والتراثية وطرق المحافظة عليها مشروع شراكة أورو متوسطة (٢٠٠٥- ٢٠٠٧).





٥- آثار (برنامج تدريبي للمحافظة على التراث الأثري في المنطقة العربية) وتقوم مؤسسة (ICCROM) بتنفيذ البرنامج بتمويل من وزارة الخارجية الإيطالية. ويهدف البرنامج الى تعزيز عمل مؤسسات التراث الرسمية في الأردن وسوريا ولبنان. وعُقدت دورتان للتدريب خلال العام ٢٠٠٥ شارك بها (٩) من دائرة الآثار العامة.

◀ **مؤسسة (CIM) Center of International Migration and Development Cooperation الألمانية :**

- أبرمت اتفاقية مع مؤسسة CIM الألمانية في إطار تعزيز التعاون الدولي حيث تم إيفاد خبير معماري في مجال الحفاظ على التراث للعمل في دائرة الآثار.

✻ **التعاون العربي للتدريب**

◀ **دورة بلاد الشام لترميم الفسيفساء**



تُعقد دورة بلاد الشام لترميم الفسيفساء كل عام لمدة ثلاثة اشهر. بالتعاون ما بين دائرة الآثار العامة ومدرسة مادبا لترميم الفسيفساء، ومختبر أريحا ودائرة الآثار السورية بدعم من المؤسسة الإيطالية للتعاون الدولي جنوب-جنوب، ومعهد الإبياء الفرنسي سكان. والاتحاد الأوروبي. تهدف الدورة الى تدريب طاقم محلي وإقليمي متخصص في المحافظة على الفسيفساء ونشر الوعي بأهمية الإرث الحضاري الذي تتميز به بلاد الشام. ويشارك في الدورة متدربون من الأردن وسوريا وفلسطين ولبنان والعراق. عُقدت هذا العام لمدة شهر في مادبا والسويداء وأريحا. وقد صدر كتيب خاص أوجز نشاطات الدورة.

◀ **دورات تدريبية للكوادر العراقية**

نظمت دائرة الآثار العامة بالتعاون مع مؤسسات دولية دورات تدريبية للأشقاء العراقيين في مجال المحافظة على الآثار وحمايتها:

دورات تدريبية بالتعاون مع المنظمة الإسلامية للتربية والعلوم والثقافة (ISESCO)

- بتمويل من المنظمة الإسلامية للتربية والعلوم والثقافة (إيسيسكو) وبتنظيم وإعداد دائرة الآثار، عُقدت دورة تدريبية لمدراء مكاتب الآثار العراقيين في مجال إدارة المواقع الأثرية (٣-١٠ / ٤ / ٢٠٠٥).



دورات تدريبية بالتعاون مع الوكالة اليابانية للتعاون الدولي JICA



- دورة تدريبية في الحفاظ وإدارة المواقع الأثرية ٨/١-٣/١٠/٢٠٠٥. (١٤ مشاركاً من العراق وه مشاركين من الأردن).

دورات تدريبية بالتعاون مع Getty Conservation Institute World Monument Fund

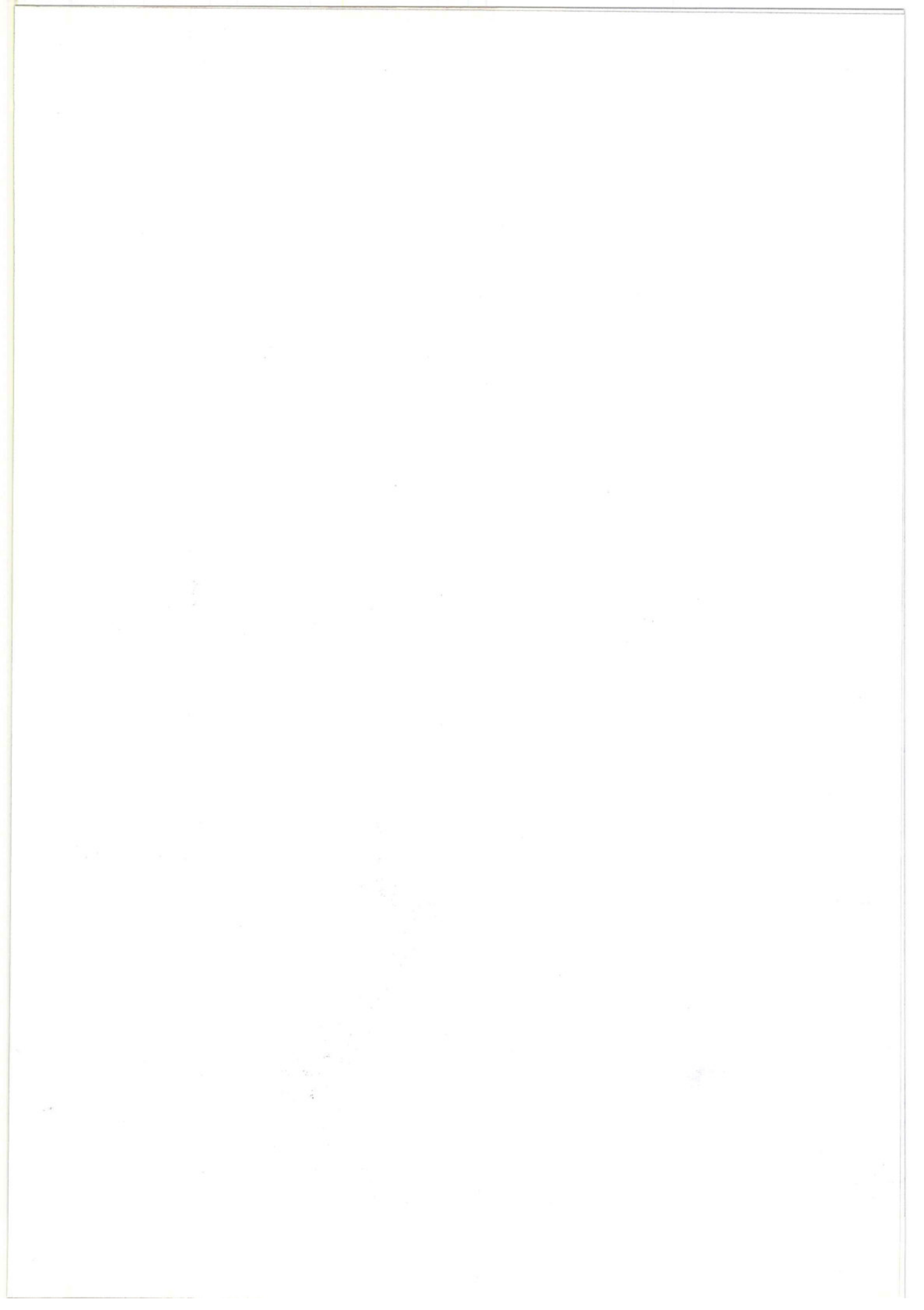
- إدارة المواقع وتقييم حالتها ٢٨ / ٤ - ٢٤ / ٩ / ٢٠٠٥ شارك بها ٢١ مشاركاً من العراق و ٣ مشاركين من الاردن.

- دورة تدريبية في الحفاظ على التراث الثقايفي ١٥ / ٢ - ٢٣ / ٣ / ٢٠٠٥، وبالتعاون مع اليونيسكو وألمانيا وفرنسا. (١٥ مشاركاً من العراق وه مشاركين من الأردن)

التنقيبات في دبي



في إطار التعاون مع الدول العربية وتبادل الخبرات تم الاتفاق مع دائرة السياحة والتسويق التجاري في إمارة دبي على إرسال فريق أثري أردني للقيام بأعمال التنقيب والمسح الأثري وكان الموسم الأول في عام ٢٠٠٢. وقد طلبت دائرة السياحة والتسويق التجاري في دبي إن يتابع فريق دائرة الآثار العمل سنويا وفي أكثر من موقع.





F (400 m²) was established on a small rise in between the “southern village” and the temple and bath complexes. Two possible graves; Tomb?1 and Tomb?2), led us to believe this area may contain ancient graves. Finally, Block G (900m²) was placed near the southern village.

While formal analysis, including time slicing, has yet to be performed, preliminary review of GPR data collected at ڤ ādi Rumm shows the data to be of generally excellent quality. Numerous subsurface reflectors were noted that may be caused by archaeological features. Although natural or modern phenomena may cause similar signal responses, cultural features are generally distinguishable by their patterning. Additionally, it may be possible to distinguish between the ancient graves and Islamic burials by their orientation. A cursory examination of Islamic burial orientation at ڤ ādi Rumm identified a range of 80° E-W to 120° SE-NW. On the other hand, orientation of Nabataean graves from Khirbat Qazon, Petra, and Khirbat adh- Dharih varied widely. Therefore, possible graves whose orientations deviate from the 80° to 120° range could be identified as non-Islamic. Data processing, time slicing, and systematic analysis of both plan view and profile data plots will be necessary before specific cultural interpretations can be made.



Wādī Rumm

Project Name: Wādī Rumm Cemetery Survey

Duration: June 25-30, 2005

Number of Workers:-

Cost: \$8,734.00

Sponsor: East Carolina University/ USA

Director: Megan A. Perry

Representative: Amer Bdur

The 2005 season of the Wādī Rumm Cemetery Survey sought to identify the cemetery associated with Nabataean and Roman occupation of ancient Iram through ground penetrating radar (GPR). Discovery of the cemetery can add to research of small way stations and religious centers such as that at Wādī Rumm. Bioarchaeological analysis of human skeletons from the cemetery may illuminate migration patterns, disease, health, and diet of the Thamudic tribes residing in the Ḥisma region of Jordan. Comparisons between these burials and those from Ayla, Petra, and Khirbat adh- Dhariḥ can elucidate social and economic relations between these sites. Additionally, this research potentially could add another dimension to investigations of Nabataean mortuary rituals.

The GPR survey was conducted by Geoffrey Jones of Archaeophysics, LLC (USA). The GPR is able to detect subsurface features whose electrical properties contrast with those of the surrounding soil. The GPR can detect archaeological features in several ways. It may detect disturbed soil, breaks in the natural stratigraphy or soil profile, or reflections from buried archaeological features. The effective depth of investigation of GPR depends upon the matrix through which the signal must travel and the GPR signal frequency. Conditions at the site were generally well suited for GPR survey and signal penetration was excellent.

The layout of comparable sites such as Khirbat adh- Dhariḥ, the position of other Nabataean cemeteries in southern Jordan, the location of the modern Islamic cemetery at the site, and site geomorphology facilitated selection of potential areas for GPR survey. Our initial hypothesis was that the ancient cemetery would be located underneath the modern cemetery, along the slopes of the hill containing the temple and related structures, or along the modern street leading to the village. Unfortunately, extensive construction along the street prohibited GPR survey of this area. Seven grids (Blocks A-F) totaling 8300m² were laid out in the environs of the Nabataean temple, the “bath” complex and related “villa”, and the “southern village”. Block B (1800m²) was laid out directly south of the main concentration of Islamic graves and within the recently constructed site perimeter wall. Block C (600m²) was located in between Block B and the bath/villa complex. Additionally, Block A (1000m²) was placed immediately east of the perimeter wall surrounding the site, Block D (1200 m²) on the slope north of the bath/villa complex and perimeter wall, and Block E (2400m²) to the south of Block B and the perimeter wall. Furthermore, Block



Surveying Block D with the GPR



Location of survey blocks (view to the E)



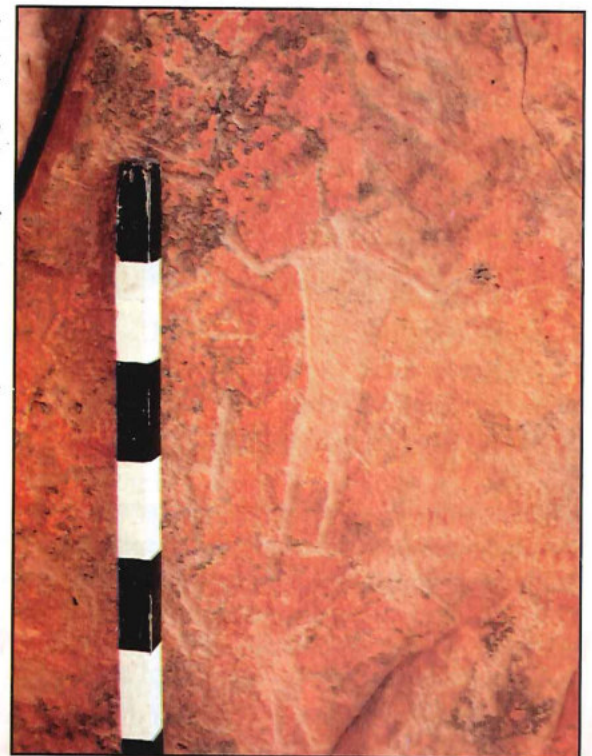
more intensive pedestrian survey around certain locales of the Hafir ('Aynal Qaṭṭar, Mughor and Jabal 'Amud) produced clear patterns of petroglyph distribution. Although determining the meaning of these patterns will have to await further analysis, it is clear that both epigraphic and inscriptional sites are not distributed randomly in the landscape but rather were carved in certain places for certain reasons.

For the purposes of recording, the Hafir was divided into nine "zones", roughly equivalent to the primary topographic and geographic divisions within the wadi. During the first session, particular locales within five of these zones were visited and intensively surveyed for petroglyph sites. So far, the survey has identified and recorded 226 petroglyph sites, ranging from small cobbles to massive boulders and towering cliff faces. In some cases, sites are made up of a number of different "panels", all of which have to be recorded as part of the site. Each site was numbered, photographed, plotted in a GPS, and described on a recording form. Within the immediate vicinity of Ayn al-Qaṭṭar (Zone 08), we identified 83 petroglyph sites, while at the pools of Mughor, we identified 30 sites, many with three or more panels. The bulk of recorded sites (86 sites) for this session came from Zone 06 (the central part of the Hafir), where an intensive survey was carried out around the "Bull Stone" of Wādi Khayneh (61 sites) and a small hill (25 sites) south of Ayn al-Qaṭṭar. Much to our surprise, an intensive survey around the E. Borzatti "map" site of Jabal 'Amud revealed only 2 petroglyph sites—the map site itself and a small Thamudic inscription and drawing.

While the Hafir is not nearly as accessible as Rumm Valley or the area of Jabal Kharaza just to the west, there is the potential for developing an "open-air" petroglyph gallery and museum for tourists. More immediately, however, the water sources of 'Ayn al Qaṭṭar and Mughor deserve particular attention and this project recommends focused archaeological survey and excavation at both sites.



site 07-0023, Thamudic Inscriptions and Drawings from Mghor



site 08-0065, human figure with raised arms and sword



Wādī al-Maṭāha/ Petra Archaeological Park

Project Name: Archaeological Explorations in Wadi Mataha

Duration: May 1- June 7, 2005

Number of Workers: 7

Cost: US \$ 15,000

Sponsor: The Department of Art History, and the Kennedy Center of Anthropology, Department of Ancient Studies and Department for International Studies at Brigham Young University, Provo, Utah. The prehistoric component funded by the National Geographic Society

Director: Dr. David Johnson and Co-Director, Dr. Dr. Lamia el-Khoury

Representative: Mr. Mohammed Salamin

The Brigham Young University al-Wādī Maṭāha Expedition was made possible with the participation of several members¹ Excavation of Site 6, a Nabataean rock cut tomb with an unusual *facade*, begun in 2004, was completed this season. Significant finds included four rock cut loculi with unusual plaster floors and benches with an undisturbed burial in Loculi 4, a gold pendant from Loculi 3, and the skeleton of an adult male wrapped in a linen and leather shroud from a bench above the loculi. A plaster piece from Loculi 4 was impressed with the faces of deities including *Harpocrates* as a bald headed child and an unknown deity with ram's horns. The forecourt of this tomb was also excavated and contained a large quantity of pottery sherds as well as complete Nabataean cups, lamps, and a fragment of a terracotta piece depicting a ram horned deity. A surface find nearby was a square cut bead of yellow and red jasper with a open mouthed deity depicted in one corner. Excavation was also begun at Site 10, an open air shrine with a façade depicting *Harpocrates*, a *biclinium* in front, with a large cistern and settling basin to the side. Site 10 was excavated in order to test the idea of pottery sherds, stones and lithics being used by the Nabataeans as votive offerings at sacred locations as previously recognized from Tombs 5 and 6. A large number of pottery sherds and lithics painted, incised or chipped with the images of deities including *Dhushares*, *Harpocrates*, and *Bes* were found immediately in front of the *facade* near the floor of the *biclinium*.

An additional group of prehistorians investigating nearby Natufian Site 2, dated to 11,000 BC; was directed by Michael Chazan of the University of Toronto and co-directed by Aubrey Baadsgaard of the University of Pennsylvania. They uncovered two rock built walls and a number of other features associated with the earliest permanent site in the Petra basin. Significant finds included a large blade and a shell containing yellow ocher used as paint.



Gold Pendant



Over View



As far as the collected evidence has already been studied, the graveyard was probably initiated during the second half of the 1st century AD and remained in use until the early 2nd century AD. Three bronze coins were found from different burials and these will hopefully provide further chronological evidence. In any case, the rich anthropological material and the archaeological data obtained regarding burial customs at the transition from the Nabataean to the Roman period will provide precious and much needed information.

Thanks are due to the director general of the Department of Antiquities, Dr. Fawwaz Al-Khraysheh, for his support and for granting the working permit as well as Dr. Fawzi Zayadine (Amman), Prof. David Graf (Miami) and Dr. Bernhard Kolb (Basel) for their continuous interest in the project.

Beside the writer the following persons participated in the 2005 season of the IWFP: the archaeologists André Barmasse, MA (Basel), Aurélien Amour, BA (Montpellier) and Lucy Wadeson, MPhil (Oxford), the restorer Urs Lang, BA (La Chaux-de-Fonds), the architect Pascal Wirth (Basel) and the software engineer Dominik Wirth (Basel). Representative of the Department of Antiquities was Tahani Al-Salhi whose help and advice were much appreciated. We would also like to thank IFPO Amman and especially its director Jean-François Salles for lodging the team during its stay at Amman.

Wādī as-Sāde and Wadi al- Fayed/ Petra

Project name: Wādī as- Sāde and Wādī al- Fāyid Survey Project

Duration: September 9- 22, 2005

Number of workers: Not hired

Cost:?

Sponsor: University of Kiel and the Naturhistorische Gesellschaft Nuernberg/ Germany

Director: Prof. Ulrich Huebner, University of Kiel,

Representative: Sami Nuwafleh

The main goal of the 2005 survey season was the continuation of the research of the 2004 campaign mainly in the Wadi as-Sade then in Wādī al-Fāyid .

Wādī as- Sāde: The way down from Nabī` al-Habis near the road from at-Tayyiba to Rajif down in the Wādī at- Tajra and Wādī as- Sāde were surveyed in continuation of the 2004 campaign. The Edomite/Iron Age II fortress called al-Qubayr by the local people was photographed, measured and a map prepared. In continuation of the 2003 and 2004 campaigns the Edomite/Iron Age II settlement Umm al-Ala was revisited. Umm al-Ala lies on a high plateau above Wādī as- Sāde. The site was photographed, measured and the map was controlled as preparation for publication.

In the Wadi as-Sade a Mesolithic site and a late Chalcolithic-Early Bronze settlement were discovered on the western wadi-side opposite the so-called Nabataean "Temple Mount".

Wādī al-Fāyid: The way from Wādī al-Fāyid to the ancient copper mine of Umm al-` Amad and the way down to Faynan was surveyed.

Following information provided by local people in the Hisha-region northeast of Bayda; we discovered an Edomite/Iron Age II settlement, called Khirbat al-Begir, reused in later periods, especially in the Ayyubid-Mamluk and late Ottoman.





Wādī Farasa/ Petra Archaeological Park

Project name: The International Wādī Farasa Project (IWFP)

Duration: August 14- September 1, 2005

Number of Workers: 11

Coast: JD2700

Sponsor: Wirth and Wirth Architects, Basel/ Switzerland

Director: Stephan G. Schmid/ University of Montpellier III/France

Representative: Tahani Al-Salhi

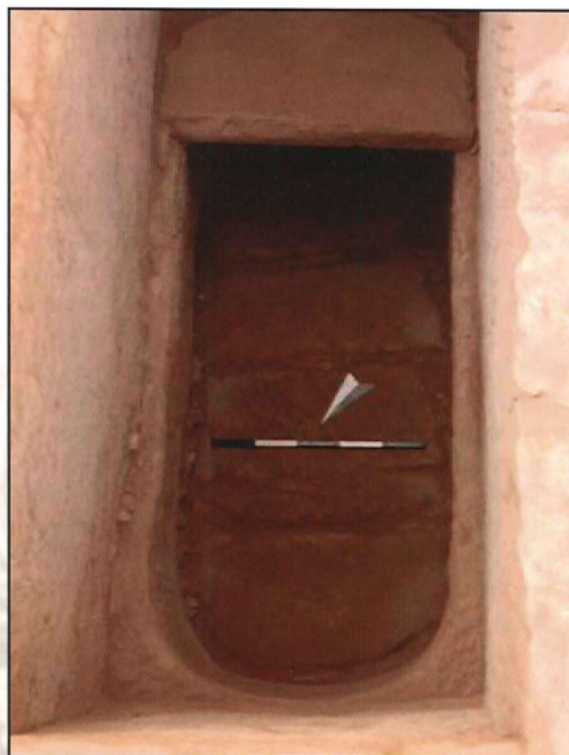
The 2005 field season of the International Wādī Farasa Project (IWFP) was carried out by the Association for the Understanding of Ancient Cultures (AUAC)/ Switzerland, and the University of Montpellier III/France. The work was made possible by many other supports and efforts^a. Work in the Wādī Farasa East continued at different spots within the Soldier Tomb's complex. For instance, a new square within the northern portico was opened; the northern portico should be completely excavated within the next two years.

While cleaning the rocky outcrop in the SW corner adjacent to the Soldier Tomb's complex, a small graveyard was discovered, counting 11 shaft graves. Two of them were especially made for child burials and initially yielded but one burial. The other nine were of considerable dimensions and depth and were made for two or even three burials. Most of these graves were looted, probably already in antiquity. However, especially within the lower burials, some remained untouched and these were carefully excavated with all their contents sifted.

Although the shafts were executed in careful stone cutters technique, the graves themselves were rather poor with almost no offerings. For instance, the lowest burial within tomb 5 is an inhumation, though the skeleton was badly preserved. Only the more substantial bones, such as the skull and parts of the legs were recognisable, the rest was completely disintegrated. More surprisingly, there were no offerings identifiable as such like complete pottery etc. Careful sifting of the complete content of that burial revealed organic material and small potsherds, indicating a chronological frame of the second and third quarter of the 1st century AD for the burial. Finally, from the lowest and undisturbed burial in grave 3 came a pair of small golden earrings, only 3g in weight each and found on both sides of the skull. Apart from the earrings no other offerings were found in that grave and the small potsherds found within indicate a date of around AD100 for this burial.



Tomb 3, golden earrings from of first lowest burial (schmid)



Tomb 5 with covering slabs burial



Tal'at Abyada cist enclosures investigated by us in the last season. A single, primary burial was found in the center of the cist, but no funerary offerings accompanied it. This site is due for further investigation. Jabal Juhayra (JF-0116), originally our main concern in this season, was only briefly sounded due to the limitation of time. Little can be said, except that the site contains ca. 50 cm sediment producing PPNB flint artifacts. This site is also due for excavation in the summer season.

In addition, our survey has located some other PPNB flint scatter sites. These sites, coupled with the two sites referred to above, would throw new light on the Jafr basin PPNB cultural entity thus far poorly understood. Of special interest is JF-0153 (Tawūs Abu Tulayha) where, aside from a PPNB flint workshop, four small cairns were found incorporating flint slabs with Islamic and/or Thamudic inscriptions into their construction material.

Tourism Potential: this is very limited because of the difficult access and less impressive appearance.

Recommendations: Prompt measures should be taken to cope with illicit diggings by local inhabitants that have been causing irretrievable damage to archaeological heritage in this area.

Wādī Abu Tulayḥa

Project Name: The Jafr Basin Prehistoric Project, Phase 2 (JBPP/2)

Duration: August 1- September 30, 2005

Number of Workers: 10 persons in average

Cost: ca. JD 4,000

Sponsor: Kanazawa University/ Japan

Director: Prof. Dr. Sumio FUJII

Representative: Amer Bdour and Suleiman Shoqairat

The area explored this season was the western sector of the PPNB outpost. The excavated area totals ca. 400sq.m. The goal was to explore PPNB evidence in the al-Jafr basin.

Of a dozen semi-subterranean stone-built structures excavated this season Structure B is highly significant because of its large scale and the quality of construction.

The excavation has shown that the Late PPNB outpost of Wadi Abu Tulayaha (JF-O155) contained a dozen stone-built, semi-subterranean structures that were arranged roughly in a semi-circle encompassing a communal forecourt to the east or southeast. The structures varied in overall layout, ranging from square to round in plan. A large number of flint artifacts including Byblos and Amuq points were found in situ. Although radiometric dating is still in preparation, the frequency of Amuq points strongly suggests a Late PPNB date for this outpost. The finds also included a large number of ground- stone artifacts made of either limestone or flint. Noteworthy is the occurrence of some gaming boards, which provide a glimpse into non-subsistence aspect of livelihood at this outpost. In addition, small numbers of miscellaneous objects made of stone, bone, shell, and clay, were found. An infant burial found along the eastern wall of Structure G is also important for anthropological study.

This site can be defined basically as a Late PPNB seasonal hunting station, but the occurrence of domestic goats and sheep, along with wild gazelle, amongst the faunal remains suggests that it was also used as a transhumance station from a parent settlement probably to the west. Given this, it follows that this site has the potential to have paved the way to pastoral nomadization in the subsequent periods. The site is also highly significant in that it provides a reliable key to north-south comparative studies of the Bādiya PPNB. Jabal Juhayra (JF-O116), another concern of this season, was not investigated due to the limitation of time. That excavation is scheduled for the next season.

Tourism Potential: This is very limited because of difficult access and less impressive appearance.

Recommendations: Prompt measures should be taken to cope with illicit diggings by local inhabitants, who have been causing irretrievable damage to precious archaeological heritage in the Ma'an district including the al-Jafr basin. It is lamentable that local looters prowled around the site even during our excavation.





discovered. Aside from being completely unique because of its numerous workshops, it has contributed, via over 2,200 "levels" (analyzed into 68 cultural phases) excavated during the last twenty-one seasons, a vast amount of new knowledge concerning Nabataean religion, art, architectural technology, trade line verification, epigraphic data, and other cultural information. In addition to the stratigraphic aspects of the excavations, the structure is one of the most closely dated Nabataean structures thus far recovered, with its initial completion set to the year, month and day in the year AD 28, during the reign of Aretas IV, via recovered dedicatory inscriptions and its destruction fixed precisely to the year, month, date and hour in AD 363, via earthquake correlation with a written record. The work of the American Expedition represents the longest span of focused archaeological activity to have been conducted at Petra, spanning some 32 years of research and excavations, after an extensive electronically instrumented survey over 13 acres of the ancient City Center in 1973.

If tourist guides can be properly informed regarding this rare Nabataean complex - and its significance for the history of Jordan, the rest of the Arab Middle East, as well as for the western world - its inherent tourist value would make it the focal site for all visitors to Petra.

Proper access is also a current problem since the bridge erected to span Wādi Mūsa is at a considerable distance to the West of the Temple, and no foot path affords an easy approach up the side of the hill to the site. Access from the East is somewhat better, even if not very direct. Guides bringing tourists from that direction tend to pass north of the Temple, en route to the restaurant facilities, ignoring the Temple completely.

Wādī Abu Ṭalayḥa and and Jabal Juhayra

Project Name: Al-Jafr Basin Prehistoric Project, Phase 2 (JBPP/2)

Duration: March 13- April 5, 2005

Number of Workers: 8

Cost: JD1, 500

Sponsor: Kanazawa University/ Japan

Director: Sumio FUJII

Representative: Hani Falahat

The fourth excavation season focussed on the northwestern part of the al- Jafr basin. The primary objective of this season was to seek for PPNB evidence in this area. For this goal, we carried out a one-week general survey and then briefly sounded a few sites, particulars of which are shown as follows:

Most Significant Monuments: Unit 1 (a stone-built, semi-subterranean structure dated to the Late PPNB on the basis of lithic evidence) and Cairn 2 (a corridor type of cist enclosure datable to the EB on the basis of typological comparison.

Results: The limited excavation has revealed that the site of Wādī Abu Ṭalayḥa (JF-0155) consists of a small PPNB encampment and a pair of EBA cist tombs. Unit 1, which was excavated as a component of the first structural complex, turned out to be a stone-built, semi-subterranean structure that comprises a main trapezoidal room ca. 2 m by 3 m and a small forecourt attached to it. A large number of flint artifacts, including Byblos and Amuq points and arrowheads, were found. The finds also included a dozen ground stone artifacts, a few stone ornaments, and some miscellaneous clay objects. Faunal remains also occurred to a lesser extent. Current evidence suggests that this site represents a Late PPNB seasonal hunting encampment. The EBA component, on the other hand, turned out to be a corridor type of cist tomb, which is comparable with the





- 3) To the west, beyond the temenos limit, the 2003-2004 excavation was considerably extended, yielding a succession of built structures of the Roman and Nabataean periods. As on the eastern side of the exedra, the deepest foundations follow an oblique axis and are associated with levels containing homogeneous artifacts of Hellenistic times (sherds and coins). The overall disposition and function of those early buildings remains to be determined. The finds may shed new light on an early occupation of central Petra.
- 4) To the north-east of the main altar, a new trench was dug near the visitors' path and gave more precise information on the northern limit of the temenos: remains of pavement and of a huge east-west wall were found in situ under disturbed surface levels.

Artifact drawing and study: Special attention was given to cleaning; restoring and drawing newly discovered pottery wares, lamps and figurines. Samples were selected for physical and chemical analyses, especially on mortars from the exedra and organic remains in pot sherds and in lamps.

Site-protection and presentation: A careful cleaning of unearthed structures, especially the Roman exedra, was done for the sake of study, and first-aid measures were taken in order to protect them from decay. Our architects and all our team are thinking about long-term solutions, and about a better presentation of the area to the public. Proposals will soon be made to the Department of Antiquities for improving the visitors' circuit.

Publication and research previsions:

We are currently preparing both a provisional article for the next issue of ADAJ and a more elaborate publication of the main structures and artifacts of the western part of the sacred area.

The next season of fieldwork, scheduled for October-November 2006, should give new information on the earlier structures discovered between the exedra and the altar and west of the exedra. We also intend to continue investigating the northern limit of the temenos and reopen a former sounding within the "Nabataean building" which revealed architectural sequences preceding the construction of the entrance hall. Further on, we would like to focus on a large-scale investigation of this puzzling building, as a second phase of our research program on the sacred area.

Temple of The Winged Lions/ Petra Archaeological Park

Project Name: American Expedition to Petra

Duration: June 19- July 28, 2005

Numbers of workers: 4

Cost: \$ 5,174.00

Sponsor: American Expedition to Petra (an independent archaeological mission)

Director: Dr. Philip C. Hammond Emeritus Professor of Anthropology, University of Utah Adj.

Professor of Anthropology, Arizona State University

Representative: Mr. Mohammad Marahleh

The Expedition directed by Dr. Philip C. Hammond Emeritus Professor of Anthropology, University of Utah, Adj. Professor of Anthropology, Arizona State University; focused its attention this season upon clarification of the northern extent of the "Great Plaza", in that sector of the site. The goal was reached, permitting more extensive excavation of the Plaza in future seasons and interpretation of its relation to the Temple Complex. A total of 50m² were excavated, with the northern wall reached. The entire Plaza now is seen to extend for over 200m².

The most significant monument on the site is, of course, the "Temple of the Winged Lions" itself. However, the residential and workshop areas form a complex of great significance. The Temple is the most important Nabataean temple thus far



Photo credits: AEP Staff Cella and Altar Platform



Qasr al-Bint / Petra Archaeological Park

Project Name: The French Archaeological Mission at Petra in the Qasr al-Bint Area project

Duration: October 29- November 25, 2005

Number of workers: 22

Cost: JD 15000

Sponsors: The French Ministry of Foreign Affairs, with contributions of the French National Research Centre (CNRS), the University of Paris I, INRAP, IFPO, the French Embassy in Jordan and some private donators.

Director: Christian Augé

Representative: Mr Sami Nawafleh

Christian Augé (CNRS-IFPO), the project Director, assisted by François Renel (Archaeologist, National Institute for Research in Preventive Archaeology (INRAP) Associate Researcher to the (CNRS), led the eighth season of excavations. These are part of a research programme started in 1999 as part of the "From Petra to Wadi Rum: Nabataean and Arabs in South Jordan" project. This season was devoted to the archaeological and architectural study of the sacred area around the Qasr al-Bint temple and of the related buildings.

The 2005 programme and main results:

We are preparing the publication of the western part of the sacred space. The 2005 fieldwork thus did not include the "Nabataean Building" to the east of the Qasr, and focused on the area extending north and northwest of the temple, including the main altar, the imperial exedra, the attached structures and the paved area, where important results were already achieved in 2003 and 2004.

- 1) The imperial exedra. The excavation of the mass of blocks fallen from the upper parts of the exedra came to an end near the southern opening of the monument. Drawings, studies and attempts at reconstruction can now be made for the whole structure. Hypotheses are currently under discussion for the successive stages of the building program during the first decades of the Roman period in the 2nd century AD, and on the elevation of this impressive monument, intended to honor Roman emperors.

Additional observations were also made on various architectural features and the decoration of the Qasr al-Bint itself.

- 2) Between the exedra and the main altar, a trench undertaken in 2004 was continued. It yielded new information on the building of the central part of the exedra and on the western limit of the temenos in a previous phase, related to the building program of the Qasr al-Bint. Further east, a succession of structures was unearthed: under a former stage of the area corresponding to the Qasr al-Bint building program, earlier walls and foundations were found, set up in an oblique direction and related to levels containing pottery ware and coins of the early Nabataean and Hellenistic period. Those buildings are connected to those uncovered west of the exedra.



The trench dug between the exedra and the altar, showing earlier oblique structures (Photo French Archaeological Mission/Andreas Kropp).



West of the exedra: excavated buildings, Nabataean and Roman periods (Photo French Archaeological Mission/Francois Renel)



of the eastern reaches of the North Ridge can delineate the sequence of occupation of this sector of the city while increasing our understanding of the inhabitants themselves through bioarchaeological investigation.

This mapping project identified many potential areas for excavation. The already exposed and robbed tombs should be cleared to recover any potential material cultural and skeletal data and document the tomb's architectural style. Few tombs have been properly excavated within Petra, thus even imperfect data can significantly increase our understanding of the city's mortuary practices. Additionally, small soundings within some of the better defined structures and along some of the ancient walls could help identify their date and function and elucidate the occupational chronology of the North Ridge. It would also be fruitful to excavate soundings within the plateau below the North Ridge slope to identify structures within this area.



Terracing along the North Ridge slope

Obodas Chapel/Jabal Numayr/ Petra Archaeological Park

Project Name: "Obodas Chapel Project"

Duration: June 16 – July 14, 2005

Number of workers 12

Cost: JD 3000.

Sponsor: French National Scientific Research Center (CNRS)/ France

Director: Laurent Tholbecq (Université Laval, Québec)

Representative: Mr Salameh Fayyad.

The 2005 season focused on the following areas:

The rock-cut chamber Dalman Inv. # 1296 (square 11000);

The blocked rock-cut chamber discovered in 2004 on the eastern side of the esplanade (square 12000);

The southern entrance of the complex (square 13000);

The area situated on the north-east of the rock-cut chamber Dalman Inv. # 1296 and of the cistern Dalman Inv. # 1297 (square 14000);

The stibadium connected to the niches Brünnow and Domaszewski Inv. # 289 (square 15000).

The objectives were as follows:

To complete the 1:20 scale top-plan of the religious complex;

To record the plans, elevations and sections of all the rock-cut chambers of the complex;

To study the architectural fragments;

To understand the layout of the southern entrance of the complex;

To study two of the unexcavated rock-cut chambers;

To study the ceramic material from the previous seasons.

All these objectives have been achieved. A further season is planned, with the aim of excavating the 1st century BC religious complex mentioned in the 20 AD dedication of the Obodas Chapel.



General overview of the complex



Stibadium connected to the niches Brünnow and Domaszewski Inv# 289 (Square 15000).



Petra North Ridge/ Petra Archaeological Park

Project Name: Petra North Ridge Project

Duration: June 5 – 24, 2005

Number of Workers: Not hired

Cost: \$5,361.00

Sponsor: American Center of Oriental Research/ Jordan, and East Carolina University/USA

Directors: Patricia M. Bikai and Megan A. Perry

DoA Representative: Suleiman Farajat

Exploration of Petra's North Ridge during 2005 sought to identify and map visible ancient structures and tombs within a ca. 6 km² area in preparation for future excavation. In addition, more recent features constructed by the *Bdul* bedouin such as terrace walls, wind breaks, or small structures were recorded. The research area was delineated by the Ridge Church, the Blue Chapel Complex, and the Petra Church to the east, the top of the North Ridge to the north, then running along an eastern ridge down to Wadi Mataha, then along Wadi Mataha until the sharp slope just to the south of the Petra Church. The survey identified 167 ancient walls, 81 modern walls, 48 tombs, 1 possible cistern, 9 water channel systems, 10 ancient structures, 3 stairways, and 1 cave. Most of the documented walls and structures were located on the steep slope of the North Ridge and along the banks of Wadi Mataha. Very few ancient walls were mapped on the plateau at the bottom of the North Ridge slope. This is probably due to the pattern of erosion and numerous structures, perhaps some that are well-preserved, may exist within the flatter sector underneath the erosion deposits.

The structures located on the North Ridge and along Wadi Mataha differed significantly. The structures along the North Ridge slope were much smaller and less 'monumental' than those along Wadi Mataha (e.g., Figure 1 vs Figure 2). The North Ridge slope likewise was bisected by extensive terracing, probably dating within the last 100 years (Figure 3). Almost all of the tombs noted during the survey had been robbed recently (Figure 4), although it was apparent that a large corpus of ceramics, and in some cases bones, remained within the tombs. Additionally, the documentation of tombs well down the North Ridge slope suggests that many other tombs located underneath the ancient structures have yet to be discovered.

These structures and tombs will potentially provide information on domestic architecture during the poorly-documented Byzantine period as well as information on the bioarchaeology and mortuary practices of city inhabitants during the Nabataean period. Additionally, based on excavations below the Blue Chapel Complex and the Petra Church, there may exist Nabataean domestic structures below the Byzantine-period structures. Thus, excavation



Tomb 16 w/ capstones (view to the NW)



Structure 1 (view to the NE)



Structure 10 (view to the N)



at the north. The upper six strata appear to have been laid specifically to level the floor paving; the lower 13 appear to be part of the artificial terracing.

In the excavations of the Upper *Temenos* West Precinct Wall, an elegant Roman Bath complex was discovered with semicircular bathrooms and a *frigidarium* accessed by an elegant marble-covered room with semicircular features at each of its four corners. Of interest are two Greek inscriptions that were found--one uses the Homeric word "prudence" dating to the 2nd or 3rd century AD.

A monumental cistern reservoir measuring 38.8 square meters by an average of 1.96m in depth, holding 19,571.97 gallons of water was recovered by the south and West Precinct Walls. Associated with it was a monumental stone basin 0.82m in height. Perhaps as important was the discovery of pre-cistern reservoir activities when it served as a pre-Nabataean residential area. The sculpted head of a deity is noteworthy.

The excavation of steps in the Residential Quarter showed that the steps were built on layers of rubble and soil fill with layers of *wadi* mud directly beneath. Pottery was also recovered which will be useful in dating the step construction. Further excavations between the Residential Quarter, Settling Tank and Baroque Room to the south and between the West Walkway Wall and the West Precinct Wall exposed the interrelationship of the bedrock and the architectural components in the southwest to further determine their date and function. The massive rock fill blocking the three caves to the east and west of the West Walkway Wall in the south were part of the same platform built by the Nabataeans to compensate for the lower bedrock in the west of the precinct prior to the construction of the *distyle in-antis* temple.

Investigations in the southwest between the Residential Quarter, Settling Tank and Baroque Room to the south and between the West Walkway Wall and the West Precinct Wall exposed the West Precinct Wall, the North Cave, the architectural interrelationship of the domestic areas/quarrying platform with the extant architecture of the precinct and determined the depth of both the Upper *Temenos* West East West Support Wall and the West Precinct Wall.

In the Great Temple the center of the Theater floor revealed that the architects reused a small column drum as a central pivot point for the laying out of the semicircular seating. Additionally the north-south Central Artery of the Canalization was recovered. An exploration of the Central Artery showed it was contemporary with the foundation wall for the *distyle in-antis* temple.

A sondage in the Great Temple East *Pronaos* between the East Corridor Wall and the doorway of the East *Anta* of the *distyle in-antis* and the *stylobate* wall of the *tetrastyle in-antis* temple proved the *tetrastyle in-antis* structure was a later addition to the original facade.

In the temple, the West *Temenos* Retaining Wall's relationship to the *Temenos* Platform revealed that the current *temenos* wall is a later addition, and that the original *temenos* platform was narrower than it currently is. Examination of the temple West Walkway revealed conclusively that the *temenos* platform is composed of an enormous fill, built over bedrock and stones. This platform was supported and bolstered on the west by the new discovery of a West *Temenos* Retaining Wall.

The Great Temple catalog included 167 objects of which 78 were coins, 10 of bone, 18 of faience, 7 glass, 20 metal objects including arrowheads, 16 pottery objects, plus 6 lamps, and 12 stone artifacts.

This was the most rewarding excavation season at the Petra Great Temple.



Aerial photograph of the site after the 2005 season



Petra Great Temple/ Petra Archaeological Park

Project Name: The Brown University Petra Great Temple Excavations

Dates: June 11- August 4, 2005

Number of Workers: 40

Cost: JD 75,000

Sponsor: Brown University/ USA

Director: Dr. Martha Sharp Joukowsky

Representative: Samia Falahat and Suleiman Farajat

Brown University Petra Great Temple archaeologists excavated numerous trenches in all areas of the precinct in 2005 to elucidate the stratigraphy and the layout.

The west access to the Great Temple precinct was excavated in the *Propylaeum* and Lower *Temenos*. The Nabataeans created an entry passage to the Great Temple from the Roman Street measuring 40.85m in length with a total of four landing platforms and five series of *in-situ* steps. All the wall and step surfaces were plastered and some of the wall surfaces were decorated with lively floral designs. A *Nefesh* was recovered from an entrance to the west baths previously excavated by the Department of Antiquities.

A trench in the *Propylaeum* steps specifically ascertained that the ballista balls stockpile did not extend under the earlier *Propylaeum* steps tile floor.

A sounding in the floor of the *Propylaeum* East Room 2 revealed an early wall serving as part of the foundation beneath the east wall of Room 2, as well as several layers of floor leveling and a section of dismantled Wall K. The excavation in the corner of the *Propylaeum* West indicated a flight of stairs originally existed to provide access into the West *Cryptoporticus* East.

In 1995 ground penetrating radar (GPR) analysis had registered an anomaly in the northwest quadrant of the Lower *Temenos* platform near the central *Propylaeum* steps. After removing sediment and rubble under the hexagonal pavers, part of the east-west canalization system was uncovered.

The Lower *Temenos* West *Cryptoporticus* excavations were successful in exposing the "open" hall connecting the West *Cryptoporticus* West and the *Propylaeum*. A sounding located near the center of the West *Cryptoporticus* between the vaults located in the east and west walls of the gallery, uncovered two east-west transverse walls forming a contemporary passageway between the vaults. The stratigraphy revealed early construction activity in the area of the Lower *Temenos*, and that floodwaters flowed further south of the current wadi bed before the Petra Great Temple was constructed. An additional sounding placed at the north end of the West *Cryptoporticus* East recovered a minimum of four construction stages in the gallery below the level of the arch superstructure. A sequence of nine stone layers alternating with soil/ rubble fills was found between the level of the floor pavers and the foundation courses of the east west wall



Sculpted head of a deity from Special Project 110



Nefesh from Trench102/103Special Project 110



of social, economic, and political structures of Iron Age II society. The project aims to combine a macro-scale (regional) and micro scale (site-by-site) approach to evaluate propositions about: (1) the degree of economic, social, and political integration between Iron Age II settlements in the region, (2) to clarify the chronology of the Iron Age II in southern Jordan, and (3) to assess models of social practice as an alternative way of understanding archaeological evidence from Iron Age southern Jordan.

To do this, the objective of the second season of work was to excavate two areas on the western and eastern side of Khirbat ad-Dabba and to continue the surface survey begun in 2004. In addition, the 2005 season concentrated on EDM mapping of topographic features of the site, as well as mapping the architectural features of four of the main Iron Age sites surveyed in 2004.

The excavated areas revealed interesting information concerning the occupation of the site. Area B1 on the eastern side of the site was placed across two rooms and adjacent to their entrances covering an area of 5.5m x 6m. Area A3 was placed against the round wall on the western side of the site and measured 6m x 4m in size. In both areas surfaces were exposed dating to the late Iron Age (7th and 6th centuries BC). This date is based on the pottery found beneath and embedded in these surfaces.

The EDM mapping of the topographical features of the site ties into the architectural plan of Khirbat ad-Dabba completed in 2004. The mapping of the architectural features of four other Iron Age sites surveyed in the 2004 season allows a detailed comparative analysis of the differences in structure and layout of Iron Age sites in the area.

The surface survey collected ceramics and flint from 40 10x50m transects, which included sites situated in the different environmental zones of the survey universe. The use of aerial photography to identify areas of interest for sampling proved particularly successful, as several previously unknown sites were discovered through this method. A number of substantial Iron Age sites were found, in addition to the location of various classical and medieval sites, substantial pottery scatters dating to the Chalcolithic/Early Bronze Age, and lithic scatters dated to the Palaeolithic.

Preliminary analysis of the pottery shows that the use of the landscape was intensive from the Chalcolithic period onwards, with markedly different areas of the landscape being exploited in different periods. These early results are promising in terms of providing detailed observations concerning different exploitation strategies of the region through time, as well as varying economic and communication patterns across time and space, especially with regard to the Iron Age II period.



grave pits dug in the earth, several remains of buildings from small one- or two-roomed ones to multi-roomed structures with a courtyard, and small, structureless stone heaps associated with Nabataean pottery. In addition, numerous terrace walls and Wadi barrages were noted in the surveyed areas. These will be mapped later from the aerial photographs. Many of the recorded small Nabataean-Roman sites have been damaged by illicit excavation. The state of these sites indicates that it is problematic to preserve the archaeological heritage in the more far-flung areas of the Petra Archaeological Park. The combined results of the intensive and extensive survey work indicate that during the Nabataean and Roman periods, the Jabal Harun area had a different, more peripheral character as compared to the adjacent areas towards Petra and Wādī Sabra. The use of the Jabal Harūn area was mainly agricultural, and according to a preliminary comparison of the find material, the period of settlement in the area seems to have been shorter and ended earlier than in the other areas. On the other hand, the abundance of Middle Paleolithic material in the Jabal Harun area is striking compared to the extensively surveyed areas. Some reasons for these differences can be proposed, such as topography and the availability of flint raw material and water, but a detailed analysis is needed to better understand the emerging settlement and land use patterns during different periods.

Khirbat ad-Dabba/ Wādī al-'Arja

Project Name: South Jordan Iron Age II Project (SJIAP)/ Survey, Mapping and Excavations

Duration: August 8- September 8, 2005

Number of Workers: -

Cost: JD 3269

Sponsor: The Council for British Research in the Levant (CBRL) and the Seven Pillars of Wisdom Trust

Director: Dr Charlotte Whiting

Representative: Mohammed Zahran

During the second season of excavations at the Iron Age II site of Khirbat ad-Dabba in southern Jordan; the team undertook detailed surface survey of sites and field systems in the surrounding region. Team members included archaeologists from the University of Durham (UK), the University of Sydney (Australia), and Texas (USA). In addition, a surveyor and a surveying assistant from Australia took part in the project.

Khirbat ad-Dabba is located in the Wadi al-'Arja (UTMN 744085/UTME 3365906) in southern Jordan. The survey universe in the region surrounding the site covered an area from ash-Shawbak in the north to Wadi Musa in the south. Khirbat ad-Dabba was first identified as a major Iron Age site in the Dana Archaeological Survey, a previous CBRL project directed by Dr George Findlater. The surface survey focused on sites identified from aerial photographs of the area (Royal Jordanian Geographical Centre 1:10,000 series), random sampling of field systems in the three environmental zones of the survey region (desert, plateau, and the area off the plateau-edge leading down to the Wadi `Araba), as well as revisiting sites previously surveyed by Glueck, Killick, Findlater, and Hart.

The purpose of SJIAP is to enhance our understanding of the nature of Iron Age II settlements on the South Jordanian Plateau as a springboard for reassessing traditional models



Over view Trench A3, facing west



Overview Trench B1, facing south west



Results: The accomplishment of the above stated objectives has provided clarification of the site's stratigraphy and chronological development that is crucial for an overall interpretation of the site. The phases of the terrace's creation are now understood (at least in general terms) and the creation of the monumental pool and ornamental garden may be securely dated to the end of the 1st Century BC, in the early years of the reign of Aretas IV. The identification of the terrace as a garden is also secure, with the discovery of a number of identifiable garden features such as cultivated soils, irrigation channels, a gravel stone-lined path, tree pits, and a flower pot. The project is prepared to produce a comprehensive five-year report for publication in the next *ADAJ*.

Most Significant Monuments in the Area or Site: A monumental swimming pool with central island-pavilion overlooking an expansive garden terrace.

Tourism Potential: Excellent! The Petra Garden & Pool-Complex is located at the heart of the ancient city, next to the Great Temple and overlooking the Colonnaded Street. Once the study of the garden and pool is complete, its restoration will provide a new feature to the many remarkable sights at Petra.

Jabal an- Nabi Harūn/ Petra Archaeological Park

Project Name: Finnish Jabal Harūn Project (FJHP/Survey)

Duration: July 23-August 25,

Number of Workers: (Not hired)

Cost: JD 30 000 (Including Jabal Harūn Excavation)

Sponsor: University of Helsinki/Finland

Director: Prof. Jaakko Frosen, and Mika Lavento

Representative: Adnan Rafaia

The Finnish Jabal Harun Project (FJHP) survey, supervised by professor Mika Lavento, is an integral part of the Finnish Jabal Hārūn Project directed by professor Jaakko Frosen. The final field season of the survey was carried out in 2005. This year the survey area was extended beyond the immediate surroundings of Jabal Harun as far as the Snake Monument towards Petra, and to Tulūl Muthayliya in the direction of Wādī Sabra. During this season the survey had three objectives. Firstly, to conclude the intensive survey of the Jabal Harun area; secondly, to carry out an extensive survey of the adjacent areas towards Wādī Sabra and towards Petra itself, recording both new and previously known archaeological sites in order to enhance our understanding of the relationship between the Jabal Harun area and its surroundings. The third objective was to follow ancient routes crossing the Jabal Harun area, one leading from Petra towards Abu Khushayba in the southwest and another going towards the west and north, to Umm Ratam, and to record the structures and sites related to these routes. In addition, geoarchaeological studies and research for flint material provenance were carried out.

The intensive survey carried out this season concentrated on two areas located to the northwest and northeast of Jabal Harūn. The areas were divided into twelve tracts, which were surveyed by 4-6 people walking in a line and collecting all detected finds. Structures and sites found were documented and mapped by total station. Altogether eight sites were recorded in these two areas, raising the total number of sites recorded in the Jabal Harun area during 1998-2005 to 189. Five of these new sites are agricultural installations consisting of barrage dams and terrace walls. The other sites are a threshing floor, a stepped road structure, and a lithic concentration, which has a late prehistoric character. The background pottery scatter was predominantly Nabataean-Roman, as during the earlier seasons. The extensive survey covered the area up to Tulūl Muthayliyya and Wādī al-Biṭāhī in the south and to the Snake Monument in the direction of Petra, as well as the immediate vicinity of the ancient routes. The locations of the sites found were determined using hand-held GPS and the sites were documented with short written descriptions and digital photography. Small samples of lithics and diagnostic pottery sherds were collected to be studied later; to enable the dating of the sites. The field observations will be complemented during the winter 2005-2006 using aerial photographs to be provided by Bob Bewley. A total of 171 sites, including both newly detected and previously known sites, were recorded during the extensive survey work. The types of sites included petroglyphs, a few concentrations of flint material, several Nabataean cisterns and rock-carved water channels, Nabataean cultic installations, tombs and rock-cut graves as well as stone-lined



at the site - the church and the chapel had already been exposed during the previous seasons; the 2005 excavations were conducted in five trenches covering other structures at the site. Trench Z exposed a large room in the southwestern end of the northern complex (hostel). A southern part of the room was used for the deposition of debris from the lime burning in a kiln located nearby. The extended Trench O revealed the remains of a room, which later contained a large lime-burning kiln. Still later the kiln was turned to a bread-baking oven and the entire room probably served as a kitchen or a food-preparation space. The room in Trench AI is a structural continuation of the Western Building (dated to the Nabataean-Roman period) but it was built in the Byzantine period. That large room might have served as a gathering place and later as a food preparation (?) area. The room exposed in Trench BI served as habitation only for a short time. Later, it was converted into a space for mixing and storing lime for the production of wall plaster. A large room exposed in Trench CI featured a well-preserved stone pavement. Additionally, major consolidation and conservation work was performed in the area of the church and the chapel. The unique installations in the chapel -the masonry-built altar, pedestal and the cruciform baptismal font -were protected by encasing them in wooden frames. Also, the mosaic in the narthex of the church was further protected by the application of geo-textile.



Images are from the excavated trenches

The FJHP 2005 fieldwork season has provided a substantial amount of information concerning the site and its environs, which will be properly studied and assessed. As before, the evidence, especially the pottery and glass, strongly indicates that the monastic complex continued its existence well into the Early Islamic period. Particularly important is the discovery of the lime-burning kiln later converted into the bread oven. These installations confirm the industrial activities on the site (preparation of the materials for rebuilding and remodeling) as well as daily economic activities. This information, together with previously collected data at the site, will be particularly helpful in the preparation of the final publication of the FJHP.

Petra Garden and Pool Complex/ Petra Archaeological Park

Project Name: Petra Garden & Pool Complex Project

Duration: June 18- July 15, 2005

Number of Workers: 10

Cost: JD 2570

Sponsor: Pennsylvania State University, Erie/ USA

Director: Dr. Leigh-Ann Bedal

Representative: Abdul Rahim Hazeem

Historical Background: The site of the Petra Garden & Pool Complex was once believed to be a marketplace ("Lower Market") in the City Center. Excavations in 1998 indicated that it is, in fact, a garden terrace with a monumental pool with island-pavilion. The work in subsequent field seasons (2001, 2003-2005) has begun to reveal the architectural details of the ornamental pool and pavilion. In addition, the application of ground-penetrating radar, soil analysis, and botanical studies, is providing important information on the design of the garden terrace, its stratigraphy and chronological development, and the cultivation of its ancient soils.

Area Explored This Season: test soundings were made in the garden terrace to: 1) Clarify the stratigraphy; 2) Review past finds; 3) Study the "flower pots"; 4) Restore the 1st Century BC pottery assemblage; 5) Prepare publication (5-year report).



found another staircase leading upwards- Probably- to a flat roof or maybe a second storey. In short, already in the early Neolithic, people in the Petra region seem to have built quite substantial architecture.

An additional surprise was the discovery of another house, Unit F, which seems to have been a mortuary house. Here we found several burials, including at least four adults, a child and six infants. The burials were collective, with three or more individuals buried together in sub floor stone cists. The bones of the adult individuals had been sorted with skulls laid down first and then the other bones on top of the skulls, indicating complex funerary practices. One sub-floor stone cist without any burial contains, among other things, a very large greenstone bead, measuring some 7 by 6cm. Among the objects recovered in association with the burials was a large sandstone slab, broken into three pieces with engravings, possibly indicating the existence of some sort of early symbol system.



Unit K with two staircases

Jabal an- Nabi Hārūn/ Petra Archaeological Park

Project Name: Finnish Jabal Hārūn Project (FJHP)/ Excavations and Conservation

Duration: July 23-August 25, 2005

Number of Workers: 25

Cost: JD 30 000 (Including Jabal Hārūn Survey)

Sponsor: University of Helsinki/Finland

Director: Prof. Jaakko Frosen, University of Helsinki

Representative: Adnan Rafaia

Located ca 5 km SW of Petra in southern Jordan, the focus of investigations of the FJHP is the Byzantine monastic/pilgrimage center, most probably dedicated to St. Aaron and dated to the 5th-8th centuries AD. The site is located on a high plateau below the summit of the Mountain of Aaron (Jabal Hārūn) near Petra in southern Jordan. According to Jewish, Christian and Islamic traditions the mountain is believed to be the burial place of Aaron, Moses' brother. The location of the site is also important with regard to the neighboring ancient city of Petra. One of the main ancient caravan routes (from Egypt and Sinai) to Petra passes by the southern slopes of the mountain. It is also understood that the site must have been visited by pilgrims from the entire region during and after the existence of the Byzantine monastery there. Equally, it should be recognized that in addition to the apparent religious significance of the site, it possesses also a tremendous potential for the development of tourism: the wild yet spectacular landscape, enhanced now by the discovery and exposure of a large ancient monastic complex.



The 2005 seventh season activities, with the participation of 30 archaeologists, cartographers and conservators, included excavations, conservation, and survey, with this report covering the excavations. As the major structures



horizontal extension was attempted.

Continued investigation of the large house (Unit K) revealed more charred roof beams, reeds, burnt mortar, and cobble sized stones, directly on the original plaster floor of the building. Although still debatable, we are inclined to interpret this as indicating that the roofs were flat. This is further supported by the fact that the find density in the collapse layers was quite high right on top of the roof collapse, possibly indicating activities were undertaken on the roof.

Features revealed in Unit K include a centrally placed post hole and a plaster basin with raised rim. This year's excavation in Unit K basically confirmed last year's results.

Excavation also continued in another large building, Unit F. This year, no interior features of Unit F were removed. However, beneath floor level, a child burial was discovered. Only the skull cap was exposed, drawn, photographed, and covered again, in order that the burial can be properly excavated by an anthropologist in the next campaign, scheduled for August this year (2005).

The continued investigation of Units L and P was devised to achieve more clarity about the situation in the South-eastern part of the site, concerning the architectural situation and the distribution of activities on the site. This area consists of a complex of stone enclosures of irregular plan, blocking the area between the Units K, P and F.

The last major operation undertaken in the campaign of 2005 was the further investigation of the passage, Space II. Here the stratigraphy is now becoming clear.

Finally, the excavations in the south-eastern and southern area of the site involved making a cut in Unit U. This circular house is much smaller than the other buildings. Since we did not yet reach the floor, its function and meaning is not yet clear.

With these results as well as those of earlier campaigns, it has become clear that the site may have a considerable potential for tourism. The plans for site protection include a combination of refilling and conservation to be followed up in future campaigns. Some backfilling in deep areas has already been done during this campaign in order to protect walls and floors; and fencing the site has already been executed by the Department of Antiquities.

Ishkarat Musay'id/ Petra Archaeological Park

Project Name: Danish Excavations at Ishkarat Musay'id

Duration: August 9- 23, 2005

Number of workers: 6

Cost: JD1800

Sponsor: Carsten Niebuhr Institute, University of Copenhagen/ Denmark

Director: Dr. Ingolf Thuesen and Bo Dahl Hermansen

Representative: Mr. Talal Amareen

The site which dates to the MPPNB some 10,000 years ago provided some surprises in this campaign. Most interesting are the results of the excavations of a large circular house, Unit K. Here we found stone walls, preserved up to a height of ca. 1.60m. But the large amount of building stones, found in the room fill indicates an original height which must have been significantly larger. The house was constructed by raising a circle of wooden posts. Around these posts, a stone wall was constructed. A central pole supported the roof which was apparently flat; and the floor and walls were covered by lime plaster. This house was partly subterranean, and a staircase of six steps leads down to the floor from the west. Inside, towards the southern segment of the wall, was



Bead of green stone from stone cist



Ghuwayr

Project Name: Rehabilitation of Ghuwayr

Duration: -

Number of workers: 15

Cost: \$ 35000

Sponsor: University of Las Vegas, Nevada/ USA

Director: Dr. Alan H. Simmons, and Dr. Mohammad Najjar/ DoA

Developments in the Neolithic (ca.9,000-5,000 BC) represent one of humanity's most significant achievements, ultimately resulting in the development of modern society. Some of its earliest traces are in Jordan. This project is for the development of an archaeological park at the spectacularly preserved site of Ghuwayr I in the Wadi Faynan. The Wadi Faynan system is remote and is spectacularly dramatic, consisting of vistas of desert mountains, red rocks, unique wildlife, and a wide array of archaeological ruins. Recent investigations in this region have documented a remarkably rich cultural heritage, ranging from Paleolithic scatters to Byzantine tells; the region was one of the principal copper producing areas of the Near East. All phases of the Neolithic are represented, with Ghuwayr I being the best preserved settlement. Western culture has its roots in the Near Eastern Neolithic, when the first settled villages developed. Jordan has its share of impressive Neolithic sites, and this project aims at conservation and presentation of one of these, Ghuwayr, where UNLV and the Department of Antiquities excavations exposed a complex settlement with irreplaceable architecture. Some structures stand up to 3 meters and there is a large outside stairway and possible public "theater," unprecedented for this period.



The exposed complex settlement

Ishkarat Musay'id/ Petra Archaeological Park

Project Name: Danish Excavations at Khirbat Ishkarat Musay'id

Duration: March 31- 12 April, 2005

Number of workers: 8

Cost: US \$ 2400

Sponsor: Carsten Niebuhr Institute, University of Copenhagen/ Denmark

Director: Dr. Charlott Hoffmann Jensen, and Bo Dahl Hermansen,
Representative: Talal Ammarin

This report describes the seventh campaign of excavations the PPNB site of Ishkarat Musay'id, within The Petra Archaeological Park.

Excavations focused on further elucidation of architectural technology (Unit K), Stratigraphy (Space II and Unit P) and activities (Units F, L, and P), as well as on extending our knowledge about the site plan (Unit U). These investigations were undertaken within the areas already exposed, and no



Post hole and a plaster basin in Unit K



Preliminary dating of the materials recovered indicates that it may have been built in the second half of the 1st century BC. It appears that the building went out of use and was dismantled, perhaps in the 1st century BC. The purpose of the building is as yet unknown.

Staff consisted of Patricia M. Bikai, director; Chrysanthos Kanellopoulos, architect; Shari Saunders, archaeologist; Fraser Parsons, site engineer; Tahani el-Salhi, representative of the Department of Antiquities. Students were Ala' al-Deek, Najd Sweidan, and Aysha Shoman. Volunteers were: Riet Versteeg, Sally De Vries, Karen Asfour, and Peggie Abujaber.

ACOR thanks the Department of Antiquities for its assistance. In particular, we thank Dr. Fawwaz al-Khraysheh, Director of Antiquities, and Suleiman Farajat, Director of the Petra Archaeological Park for their help.

The season was made possible by donations from the Khalid Shoman Foundation (courtesy of Suha Shoman), Eloisa Haudenseheld, Gough Thompson, Lys Marigold, and by funds from ACOR's Petra Endowment, a grant from USAID.

Student participation was made possible by a grant from the American Council of Overseas Research Centers (CAORC).



The west part of the cryptoporticus, looking east

Bāyir/ Qī'ān as-Sīq, Rijlāt Sālīm, Abyaḍ and Fak Abu Taur

Project name: Eastern Bayir Survey

Duration: September 7- September 21, 2005.

Number of workers: 4.

Cost: JD1700

Sponsor: University of Sydney/ Sydney-Australia and the survey director.

Director: Mohammad Barakat Tarawneh

Representative: Mr. Khalid Tarawneh.

The area of eastern Bāyir is located in the extreme rough desert environment between the Saudi border to the east, Wādi Bāyir to the west, Wādi Ḥudruj to the south and the Saudi border to the North. The surveyed and tested areas in this first season were located in the area of Qī'ān as-Sīq and Rijlat Salim. Only 2 sites have been recorded during this season (Rijlāt Sālīm 28 & Qī'ān as-Sīq 14). 10 trial trenches were placed in Rijlat Salim, Abyad, Fak Abu Tour and Qī'ān as-Sīq.

Archaeological attention was drawn to this Area and the north-east desert of Jordan by the reports of RAF pilots who flew the post route between Baghdad and Cairo in the 1920s. Field investigated the route and surveyed some areas of the Northern Arabian Desert in the period from 1925 to 1950. He focused on the eastern Bāyir region for his research but he only reached Bayir wells and did not go further east towards the Jordanian-Saudi border but continued his survey towards Ma'an and Petra. In 1981 a palaeoanthropological survey was conducted by Rolston and Rollefson in the Wādi Bāyir without going further east. This season aimed to open test trenches in order to obtain some stratified material from the eastern Bāyir area, and also to record some rich sites in order to conduct future excavations. The most significant monuments in the surveyed areas are circular stone structures probably used by prehistoric herders.

Because of the rough environment of the desert region and the scattered nature of the sites, we do not recommend any of the surveyed sites for tourism. However we recommend the tourism potential of the natural environment in the area of eastern Bayir during the spring season. We would also like to draw the Department's attention to the old police station near Wādi Bāyir which could be used as a base camp for the archaeological expeditions in the area.





from the Treasury (*Khazneh*) and the Great Temple, among other monuments. The Bayda capitals, however, feature grapes and grape leaves to an extent not found elsewhere. This decorative scheme is appropriate as the study area had previously been determined to be a wine production area.

On the last field day, a probe was made of one of the large buildings with pillars noted above and the probe showed that the building was, as expected, probably a medieval mosque.

ACOR thanks the Department of Antiquities for its assistance during the recovery of the capitals with heads, and for arranging restoration space in the GTZ center.¹ It is expected that five upper and lower capitals with four heads each will be restored in the coming months.

Thanks are due to Dr. Fawwaz al-Khrayshe, Suleiman Farajat and Dr. Talal Akasheh (Hashemite U.) and the Petra Region Authority for their help



One of the capitals showing where the heads were originally placed

Bayda

Project Name: Bayda Documentation Project

Duration: September 10 - 29, 2005

Number of Workers: 35

Cost: JD 14,475

Sponsor: American Center of Oriental Research, and Khalid Shoman Foundation/ Jordan

Director: Dr. Patricia M. Bikai

Representative: Eng. Tahani al-Salhi

The fifth season of excavations was conducted at Bayda, continuing work that started in April and May of 2005 on a rock formation called the *Qumb* (High Place) of Umm Quṣṣa at Bayda.

In the spring season, the rock-cut *cryptoporticus* of a now-vanished Nabataean building had yielded capitals decorated with heads of various gods as bosses. A total of 28 such heads have now been recovered. The *cryptoporticus* is at the eastern end of the formation and that end was apparently the focus of a large complex that stretched over the whole length of the formation.

Much of the approach leading to the top of the formation is in relatively good condition, and consists of a paved courtyard leading to a gate. The courtyard was ca. 4m wide N/S and 6m of its length is still extant, but it may have been well over 12 m long E/W. Beyond the gate is an area from which a broad flight of steps leads to the building at the top of the formation.

At the top of the steps, there was probably another open area. East of this are a series of vaulted rooms measuring in total 15m x 15m. The vaults probably supported an area directly in front of the main room of the complex.

Finally, to the east, there is a long *cryptoporticus* (23.40m). Above the *cryptoporticus* was a hall featuring the capitals with the heads; of the actual structure nothing remains in situ. North and west of the main building are a series of rooms that may have served as baths or kitchens. In all areas of the structure, fragments of decorated plaster have been recovered but only plain white plaster has been found in situ.



The steps leading to the top of the formation



The vaulted structures under the steps and forecourt to the west of the main hall



Bayda

Project Name: Bayda Documentation Project

Duration: April 30 - May 17, 2005

Number of Workers: 59

Cost: JD. 20,000

Sponsor: American Center of Oriental Research (ACOR)/ Jordan

Director: Dr. Patricia M. Bikai

Representative: Eng. Tahani Salhi

The fourth season of the Bayda Documentation Project concentrated on the westernmost section of the study area. In that sector more houses of the medieval period were identified. Two of the larger ones, both of which have columns carrying the central roof, were put on the plan and identified for future work. The bedrock formations of the western area were found to contain two wine presses, two cisterns, large water channels, and a building with three rooms; the purpose of this building is unclear.

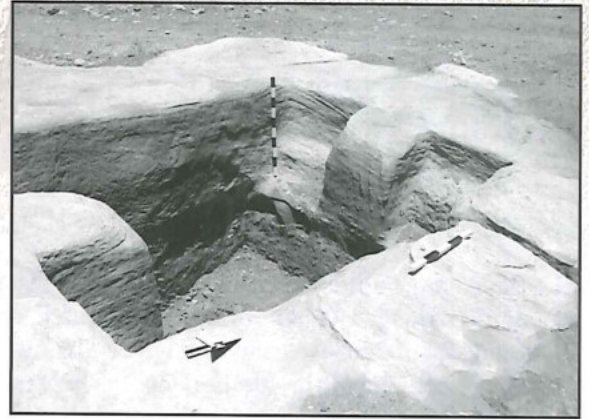
It is believed that the water channels may have connected to the main water system coming from the east on aqueducts. Finally, in the lower area are two rooms cut into bedrock that had been partially cleared of debris by the Department of Antiquities before this season began (for which we are grateful). The larger of these is perhaps a Nabataean *triclinium*. Various other nearby niches and installations were also documented, including a room cut in the cliff facing *Siq al Bārid*.

As the objective of the project was to document the whole study area from the highway in the east to *Siq al-Bārid* in the west, and from *Siq al-Amṭi* in the north to the wadi in the south, one area remained to be documented, a high bedrock formation in the east of the study area; this was called the "high place" for reference purposes only.. The strategy for documenting this was the same as elsewhere: minimal clearance, mainly of windblown sand and other late debris in order to define major installations and put them on the plan.

On May 5 part of two capital volutes with heads carved on them in low relief were found there. On May 7, at the eastern end of the formation, a sandstone head in the round measuring about 14 cm in height was recovered. The next day a second head, apparently of *Bacchus*, was found. The area where these were recovered was a rectangular space cut east/west into the bedrock formation. On May 9 another six heads were recovered and seven capital parts were also found. Two of the four upper capital halves had heads still attached to them (one was much defaced). By now there was a realization that the heads were portraying Greco-Roman gods. Over the next week, more capitals were recovered as were more heads and in the end there was a total of 22 heads. In the trench where they were found there were also some column drums and some cornices but there was a notable lack of building materials to accompany the capitals; there were no bases and, most importantly, there were few ashlar blocks. The building had literally been taken away at some point but those who removed the materials had no use for the capitals. Further, it also became clear that the place where the cache of capitals was found could not have been the place where they were originally located as it was too narrow. Arch springers on the north and south sides of this area showed that the space had carried a vault up to the level of the top of the bedrock formation; the monument that had contained the capitals was located there, on an area that is now bare.

Discovery of a few heart-shaped column elements showed that the colonnade to which the recovered elements belonged was an interior one and the foundations for the exterior masonry of the building have been located. The building, which may have been an elite residence, a shrine, or a *triclinium*, was approached by a beautifully paved ramp from the west. To the north and south of that ramp are rooms that were obviously used in support of the upper structure (possibly kitchens or baths). Not all of these have been documented. The ramp led to a porticoed entrance to the colonnaded room.

The upper capitals are decorated in an elaborate floral style known



Cistern: arch springers show that it was originally covered



Aphrodite



baulks of Squares B22 and B32 exposed a twin buttress as well as a leveled wall with remains of a ceiling on top. The interpretation of the situation provides clear evidence for two-storied houses in Ba'ja, where upper floors had large central rooms with twin buttresses supporting the roof. They are founded on basement floors, which had been upper floors before: When transferred into basements walls were inserted creating cellular ground plans and staircases were inserted or modified. During this reorganization of space, new passage and window like wall openings were inserted or older ones were blocked.

Bayḍa

Project Name: Bayḍa

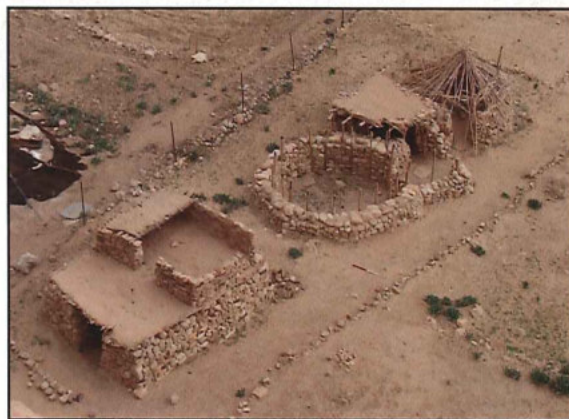
Duration: October-November, 2005

Number of workers: 1

Cost: JD700

Director: Prof Bill Finlayson, Dr Mohammad Najjar, Miss Samantha Dennis

The Bayḍa project is a joint project between the Department of Antiquities and the Council for British Research in the Levant. In the autumn of 2005 we continued with experimental work on the reconstructions built beside the remains. The work undertaken in this short season involved building a second storey on the rectangular pier structure. Second storeys have been suggested on the basis of some of the architectural evidence found during Diana Kirkbride's excavations, but the evidence is to a great extent tangential, as there are no clear steps up to any second floors, and the argument is largely based on superimposed wall lines from upper layers of the stratified remains. While the experimental work cannot prove the presence of a second floor, we can at least experiment with the structural and architectural possibilities of placing another floor above the rectangular structure formed by the piers.



We excavated part of experimental building B48, the burnt round structure, as part of our investigation into the taphonomy of the processes of destruction. In addition we maintained the roof of experimental building B18, the flat roofed round structure, by adding a new layer of mud and replacing the flat stones around its perimeter. These stones appear to have been very successful at protecting the roof, presumably because they reduce erosion to the margins of the flat roof, especially by preventing water erosion as they interrupt run off channels. The eastern entrance to the structure was blocked up, reproducing one of the modifications made on the original archaeological structure.

We also collected some environmental data. Some of the geologists from the University of Reading working on the Water, Life and Civilisation project attended a lecture given by Brian Byrd for the launch of his Bayḍa report (Byrd 2005), and had noted that there is a 2m thick culturally sterile sand between the Neolithic and the Natufian material. This has the potential to provide the best climate record for the Older and Younger Dryas climate periods (c 15,000 – 10,000 years ago) in the eastern Mediterranean, with direct information on human adaptation to these climate changes. Most deposits for this period, including those from sea-bed cores in the Mediterranean are only a few centimeters thick. We sampled these cleaning a section at the base of one of Diana Kirkbride's trenches and cutting some new sections on the margin of the site. During the visit of the geologists to the site they discovered travertine deposits very close to the site. Preliminary dating of these suggests that there was an active spring during the Natufian, that probably did not run during the Younger Dryas, but which became active again during the PPNB. While we do not yet know if this provided fresh water, it certainly provides a very different impression of the site and its water resources than previously understood.

Byrd, B. 2005 *Early Village Life at Bayḍa, Jordan: Neolithic Spatial Organisation and Vernacular Architecture. The excavations of Mrs Diana Kirkbride-Helbaek* BritishAcademy Monographs in Archaeology, Council for British Research in the Levant, OUP. Oxford.



Ba'ja

Project Name: Excavations at Ba'ja

Duration: September 6-19, 2005

Number of workers: 5

Cost: JD1680

Sponsor: Ex Oriente at Free University of Berlin/ Germany

Director: Dr. Hans George K. Gebel

Representative: Hussein Askar

Work concentrated on the following aims: 1) Excavations of two multiple burials in the lower room stratigraphy of Area C. 2) Re-measurements of all levels taken in the previously excavated Areas B-North, B-South, C, D, and F. 3) Clearance of architectural features in Area B-North (B22/32) and Area B-South (B64). 4) Excavation of a Test Unit (TU7) in Area A.

History can start following re-defined aims and strategies and new questions as well. In Area C, Square 10, a burial pit Locus 152 measuring c. 80x70cm was deepened into the virgin soil through the earliest plaster floor. It contained 3-4 adults, including one juvenile (18-20 years, male), and 3-4 infants, including one possible new born. The juvenile individual appeared to be articulated and complete except for the cranium; the other (male?) adult had articulated spine and legs; another adult's legs and feet were articulated too. The infant remains and the other parts of the adults' remains were mixed throughout the burial pit. The number of grave goods was limited: a few isolated beads and a one flint dagger were found together with red pigments. Most probably the burial represents the mortality situation of an extended family at a certain time.

Another multiple burial (Locus 170) was excavated above a typical plaster bed in a neighboring room. Various concentrations of human and animal remains were found. The contextual relation between the animal and human remains is unclear, and might not be ritual. The mixed burials appear to be older than the surrounding architecture, since parts of the collective burial go underneath an eastern buttress. Except for 12 flint arrowheads of a single type, no other grave goods were found. Test Unit 7 was an enterprise designed to understand the potential domestic and communal units in this area giving access to the site from the Siq al-Ba'ja. Below erosion layers an extramural burial was found in a LPPNB midden area, buried in stone rubble. The thorax of the body rested on its back with the skull resting slightly higher. The right arm rested below the lower part of the spine, while the lower left arm stretched towards ESE. The lower extremities were contracted, but not really representing a "hocker".

The remains belong to a gracile adult female aged 25-50 years, suffering from dental diseases such as abscesses. Stratigraphically, the burial belongs to a post-occupational Neolithic phase of the site, probably a "PPNC".

The architectural remains in the southernmost third of the test unit represents an extremely solid part an LPPNB building, and showed the architectural occupation to be found in Area A. The clearance of the eastern



Flint dagger found in a collective burial (Area C)



LPPNB Ba'ja, 2005: staircase connecting an upper floor and a basement



'Ayn Abu Nukhayla/ Wādī Rumm

Project name: Early Neolithic Adaptation to the Arid Zone in the Southern Levant

Duration: April 28 - May 12, 2005

Number of Workers: 14

Cost: \$4,756

Sponsor: Funding - National Science Foundation and the University of Tulsa/USA; Coordination - ACOR/ Jordan

Director: Donald O. Henry

Representative: Manal Basyouni

During this fourth short, final season of research at the Early Neolithic site of 'Ayn Abu Nukhayla the excavation was completed and a geological sounding in a nearby dry lake bed was extended to a depth of 4.5m. This 2005 season of research at the site will cap a multi-year investigation designed to trace the age, social and economic dimensions, and environmental backdrop of the site. Three structures (Locus 3, Locus 4, and Locus 11), only partially completed in the 2001 Season, were excavated to their earliest occupational floors. The excavations and associated recovery of artifacts (e.g., flint tools and debris, ground stone items, ornamental shell, worked bone tools) and ecofacts (e.g., faunal remains, pollen phytoliths, and spherulites) furnish a unusual opportunity for reconstructing the social and economic organization of the settlement. The often rapid influx of windborne sand coupled with episodic abandonment of the site provide a unique context for examining the spatial distributions of discarded artifactual and ecofactual evidence. In so doing through high resolution spatial analyses, we have been able to better understand:

- (1) The age and duration of the occupation(s)
- (2) The subsistence and land-use strategies of the occupants
- (3) The social and economic organization of the settlement

Although continued analysis of the newly recovered evidence will contribute to a more refined reconstruction we now think the site was principally occupied during the Middle Phase of the PPNB over a relatively brief interval of 180-260 years, centered on 8,500BP (uncal.). Various artifact (e.g., blades with sickle

polish and distinctive microscopic wear patterns, ground stone morphometric data, and source analyses of the chert) and ecofact (e.g., pollen, phytolith, and spherulite) evidence indicates the Early Neolithic occupants followed a mixed strategy of herding, farming, and foraging. This mixed subsistence package enabled moderately-sized groups of perhaps 60-80 people to reside at Ayn Abu Nukhayla over the winter season, but during the long, dry warm season they abandoned the site for the better watered uplands of the adjacent Ma'an Plateau.

Our research results challenge prevailing notions of the Early Neolithic of the arid zone on several fronts. In contrast to reconstructions in which the Early Neolithic occupation of the region involved small, highly mobile foraging groups, our evidence points to relative large groups that followed a seasonal mobility pattern based upon a mixture of foraging, farming, and herding.

Beyond the excavation of structural loci at 'Ayn Abu Nukhayla, we also undertook a 2m x 3m sounding in a dry lake bed near the site thought to have been used for farming during the Neolithic period. Sediment samples from the sounding will be analyzed for samples suitable for ¹⁴C and optically stimulated luminescence dating, pollen, phytoliths, diatoms, sediment composition, geochemistry, and magnetic susceptibility. These studies are expected to trace a climatic-environmental sequence with unparalleled chronometric resolution for the region that stretches back to the terminal Pleistocene; i.e., ca. 12-13,000bp.





Relating to the examination of the Pleistocene lakes in Zone III of the survey territory we carried out pedestrian transects of segments of the lakes and collected associated materials, mostly lithics. We found lithic materials ranging from the Lower Paleolithic to the Epipaleolithic (ca. 18000-8500 B.C.). This indicates that at least some of the lakes were "active" during periods over a long span of time.

Agricultural towns/villages/hamlets, camps (seasonal), farms, forts, roads, and watchtowers are among the types of sites surveyed this season. The evidence of past agricultural activity is not surprising since Zone II is presently an area that is intensively farmed for the growing of barley, lentils, and wheat, in particular, and for the pasturing of goats and sheep. It is most probable that this area would have been a source of food for the inhabitants of a major center such as Petra.

With regard to the cultural-temporal units represented in the survey territory, we identified evidence of human presence from the Lower Paleolithic to the Epipaleolithic, and especially to the Iron II, Nabataean, Roman, Byzantine, and Late Islamic periods. We were not able to identify evidence of sustained human presence in the survey territory for the Chalcolithic, Early Bronze, Middle Bronze, and Late Bronze periods. In addition, there is little evidence for settlement in the area during the Hellenistic and Early and Middle Islamic periods. It would appear, therefore, that there were periods when the area was sparsely, if at all, populated.

It was the growing and harvesting seasons in the survey territory during our first infield season. Thus, we were able to witness the number of Bedouin who are present at this time of year and their activity relating to their crops and animals. It is unlikely, however, that tent dwellers would be able to inhabit the area, especially the regions of high elevations, during the winter months.

Survey-team members were surprised at the number of architectural sites discovered in Zone II. These sites indicate the intensity of past farming activity in the area especially since the Iron Age. There was little or no ceramic material associated with the Pleistocene lakes which probably indicates that they dried up before the historical periods.



Remnants of Structure at Site 193, Kh. al-Wahida; looking southwest



Ayl/ Rās an -Naqab

Project name: "The Ayl to Ras an-Naqab Archaeological Survey" – Phase I

Duration: May 4- June 12, 2006

Number of workers: 5

Cost: JD15,000

Sponsor: Major funding from Social Sciences and Humanities Research Council of
Canada & St. Francis Xavier University Canada

Director: Burton MacDonald

Representative: Ashraf Rawashdeh

The Ayl to Ras an-Naqab Archaeological Survey was in the field for its first of three seasons. The main objective of the survey is to discover, record, and interpret archaeological sites within the Ayl to Ras an-Naqab region – in an area of ca. 806km². Another objective is to determine the settlement patterns in the region from the Lower Palaeolithic (ca. 1.4million years ago) to the end of the Late Islamic period (AD1918). Since there are a number of Pleistocene lakes within the survey territory, a third objective of the project is to investigate the period(s) in which they were "active". Overall, the project's objective is to add to the store of archaeological information on human presence and the human use of the area's resources in the southern segment of the Transjordanian plateau, that is, from Wadi al-Hasa in the north to Ras an-Naqab in the south.



Northeast corner of interior of cistern at Site 121, Kh. Umm Rujm;

The survey territory, which is to the south of Petra/Wadi Musa, consists of three topographical zones: Zone I, on the west, is an area where the elevations are between 1500-1100m; Zone II is the mountainous region where elevations range from just over 1700m to the north of the village of Ayl to 1500m in the south at Ras an-Naqab; and Zone III, from the 1500m line on the east towards the 1200m line, that is, towards Ma'an.

Mediterranean climate dominates in Zones I and II and the annual precipitation is as low as 50mm in the former to around 300mm in the latter. In Zone III, the climate is arid and the vegetation is Irano-Turanian. This is the steppe where the "desert" meet the "sown".

Over the past 100 years a number of researchers have carried out archaeological surveys and, to a very limited extent, excavations in the region. However, no comprehensive archaeological survey of the area had ever been undertaken previous to the present project's work.

Various methodologies will be used during the three infield seasons of the project. However, during the first season, a comprehensive and systematic examination of the greater part of topographical Zone II was carried out. The major north-south roadway in the area runs through this zone and the watershed is located here. As a result of the latter topographical feature, wadis flow to the southwest and southeast through this zone and into Zones I and III. We examined these wadis and the ridges between them. As a result, we discovered the majority of the project's 209 sites in this way.



Al-Jafr Basin

Project name: Al-Jafr Basin Archaeological Project, Phase IV

Duration: June 1-30, 2005

Number of workers: 6

Cost: JD 8,000

Sponsor: University of California, Riverside/ USA

Director: Dr. Leslie A. Quintero

Representative: Khalid Tarawneh

Fieldwork again focused on a portion of the northeastern margin of the al-Jafr Basin about 50 kilometers southeast of the town of al-Jafr. Fieldwork was conducted for two projects with the following goal (1) to study the organizational structure and dating of the Chalcolithic/Early Bronze age cortical flake industry that supplied blanks for fan scrapers or cortical flake knives that are hallmarks of the urban centers of that period; and (2) to complete survey, mapping, and collection of Acheulian artifacts from a series of Middle Pleistocene surface sites at 'Uyūn Qedim. Both goals were accomplished.

The first project involved a study of domestic structures and surface artifacts at sites associated with cortical flake-production quarry sites and link them to the Chalcolithic/Early Bronze period lithic industry. The second project completed work at a cluster of seven Acheulian sites whose assemblages are dominated by large bifaces, nearly all of which are tranchet cleavers used for butchering large game animals. The large size of the bifaces indicates their affiliation with the Late and Middle Acheulian periods, or roughly 400 to 700 thousand years ago. The discovery of these sites firmly establishes a very significant presence of *Homo erectus* in the eastern basins of Jordan during the Middle Pleistocene, and constitutes one of the most important records of Ice Age occupation in the entire Near East.

There are no significant monuments in the area studied, and there is no tourist potential. We recommend that these sites be left as they are and that they be protected from any large-scale mining that might be undertaken in the area.





Al- Ḥamma

Project Name: Excavations at al- Ḥamma

Duration: June 1- 30, 2005

Number of workers: 6

Cost: USD 4300

Sponsor: American School for Prehistoric Research (ASPR) and Harvard University/ USA

Director: Cheryl A. Makarewicz

Representative: Abdullah ar- Rawashdeh

Al- Ḥamma, Located in the Wadi al-Hasa in the immediate vicinity of at- Tannūr Dam, is a prehistoric village site containing multi-period Pre-Pottery Neolithic deposits. This year excavations focused on uncovering Late PPNB and PPNC material in order to investigate the LPPNB-PPNC transition. The PPNC is generally considered a period of decline from the previous Late PPNB period, where many 'classic' PPNB attributes such as socially specific human interment practices, skull plastering, and a complex symbolic system are absent. While the 'collapse' of the PPNB has been attributed to human-induced degradation of environment, this hypothesis has never been rigorously tested using paleoenvironmental data such as collected from PPNB and PPNC archaeological contexts. A major focus of the 2005 season at al-Ḥamma was the collection of pollen, phytolith, macrobotanical, and faunal samples from PPNB and PPNC deposits in order to understand the possible relationship between environmental change and the PPNB-PPNC transition.



Storage Bin

Excavations continued both in areas already opened in 2004 and a new 5 x 5m square opened this year. Substantial architectural remains attributable to the PPNB were uncovered, including two meter high white plastered walls containing windows/passageways, thick white plaster floors, a room containing three plastered storage bins, and two processing areas consisting of flat flagstones, a large, one meter long ground stone, and a molded clay hearth. PPNC deposits included a huwwar floor surface, a hearth, a small platform, and possibly a small ephemeral wall. Approximately 3,000 lithic remains; of which only a small minority is identifiable tools such as Abu Ghosh and Jericho points, were recovered. The faunal assemblage is dominated by goats and sheep, but gazelle and red fox are relatively well-represented. Cattle, tortoise, and bird are also present, but in lesser quantities. Special finds were limited, and include only one complete bone awl, two highly polished cobbles, a perforated mother-of-pearl pendant, several carnelian beads, a fragment of copper ore, and red ochre.



the wall in a sector apparently not cleared of its original archaeological debris. The north column was definitely not *in situ* and no structural evidence for a lateral north aisle was found.

Excavation was conducted in the *locus*/room at the south of the nave with the row of column plinths on its northern side. A mosaic pavement, partially preserved, covering completely the western half of the *locus*/room came to light. Its complete excavation has been possible thanks to the highly qualified workmanship of our local workmen.

The pavement had been cut in antiquity on both its north and south sides by the church's south perimeter wall and by that of the massive wall built of *spolia* now visible at the south side of the *locus*/room, which clearly belongs to a later construction phase, when this whole sector underwent a radical transformation. Among the results gathered from our excavation, we can attest that the three columns, together with the mosaic pavement are stratigraphically part of the original layout of the sector. The polychrome mosaic pavement (US 101) covers the entire surface area of the room: 3.50 x 2m (actually) visible. Its remains point to great workmanship, excellent execution and fine composition. The small *tesserae* are white, black, grey, blue, red and yellow. According to its decoration pattern, the mosaic is oriented to the west, and organized in a succession of three central panels presenting flower compositions, framed by two different geometrical borders. The best parallels are to be found with Umayyad period mosaics. Another type of geometrical composition is partially visible between the *intercolumnni*, the space between two columns on the northern side.

A third trench measuring 1.85 x 5.50m was opened in the southern segment of the church's apse to investigate the stratigraphy in relation to different construction techniques observed in the apse wall elevation. An intrusive rectangular pit was discovered, nearly devoid of pottery materials, apart from one nearly complete yellow glazed bowl probably belonging to the Mamluk period. The excavation in this trench reached the apse wall's foundation level, which had been cut through the west perimeter wall of the adjacent monumental courtyard sector.

The Mission of the Italian Institute for Africa and the Orient acknowledges Dr. Fawwaz al-Khraysheh, Director General of the Department of Antiquities of Jordan, for the great opportunity given. We also thank the Italian Embassy at Amman for their support.



Ar- Rabba/ Karak Plateau

Project Name: The Rabbath Moab and Qasr ar- Rabba Project

Duration: September 23- October 16, 2005

Number of Workers: 11

Cost in loco: Euro 12.700

Sponsors: Istituto Italiano per l'Africa e l'Oriente/Rome/ The Italian Ministry of Foreign
Affaire and Perugia University/Italy

Director: Jacqueline Calzini Gysens.

Representative: Jihad Darwish

The first season of excavations at the monumental archaeological site of ar- Rabba (JADIS 2207.002) was conducted by the Italian Mission of the Institute for Africa and the Orient in collaboration with Perugia University. Field director was archaeologist Prof. Gianluca Grassigli (Perugia University), and Architect: Muhammad Ali Al-Khattib (Is.I.A.O.).

The project area selected for our program of stratigraphic excavation, restoration and site enhancement is located in the central part of the monumental archaeological area, west of the modern Amman-Karak road, and includes the remains of a monumental courtyard, a church and adjacent structures, already partially cleared of their debris by the Department of Antiquities in 1962-1963.

The principal goal of our project is to ascertain the construction period, occupation sequence, functional history and to study the surviving architecture.

The standing remains in question belong to the last occupational phases of ancient ar- Rabba, known from the literary sources as *Rabbathmoab/ Areopolis/ Ma'ab*, of the Roman/Byzantine/Early Islamic periods, after which construction activity, at least in this sector, seems to have ceased.

The ancient site had been an important urban centre, first of the Roman period *Provincia Arabia*, and after the regional administrative reorganization at the end of the fourth century of *Palaestina Tertia*. Located and *capuviae* on the *via Nova (Traiana)* Rabbathmoab/Areopolis had also received a garrison of the *Equites Mauri Illyriciani* (*Notitia Dignitatum ,Or.37*). The Muslim tradition records the location as Ma'ab, one of the first Byzantine cities to be conquered.

The season started with investigations at the site of the small church building. Already partially exposed, its overall layout is of the mono-apsidal type, its central nave measuring 16 x 5m. (Covering 69 square meters). Oriented to the east, its features are preserved on both sides of the nave to a height of 2.50m. In the apse, only a few elements of the lower steps of the *synthronon* are visible.

Results from the architectural surveys conducted by the Italian Mission of Is.I.A.O (2002-2003-2004) and the documentation produced by architects Ombretta Dinelli, Alessio Deroma and assistants during the survey of 2004; refer to clear evidence of discontinuity in church construction, occupation and function. Mortar samples and their laboratory analysis by geologist Giovanna Cecchi, confirm these observations. One of the first questions to be resolved is that of the original layout or composition of the church building (a simple chapel, or a two or three nave construction). Investigation started with the examination of the structural relationship between the central nave and the room/*locus* located south; to establish whether its row of three columns (the plinths of which are still *in situ*), now incorporated into the perimeter wall of the nave's southern side, might originally have divided a multi-nave basilica. The function of an apparently solitary standing column abutting the church perimeter wall on its northern side, was also investigated, by opening a trench of 1.30x 3.40m along





Khirbat al-Mu'ammariyya/ Wādī al-Mūjib

Project name: Excavation and Survey at Khirbat al-Mu'ammariyya

Duration: July 31- September 5, 2005

Number of workers: ?

Cost of project: JD 2,900.00

Sponsor: Theologische Hochschule Friedensau/Germany

Director: Dr. Friedbert Ninow

Representative: Khalil Hamdan

Khirbat al-Mu'ammariyya is located east of the Wādī al-Mujib-dam at the mouth of Wādī ash-Shuqayfāt. During the 2001 Wādī ash-Shuqayfāt-Survey, the site had been briefly studied; a first and second sounding were made in 2002 and 2003.

The site stretches from the summit plateau of Jabal al-Mu'ammariyya - downward along its eastern slopes. The massive city walls are visible from a distance. The site has the shape of a gigantic triangle. The highest corner of the triangle forms a citadel. The city wall consists of a massive casemate wall. Both long sides of the triangle formed by the city wall have a length of about 300m. While the citadel and most parts of the upper city are situated on a slightly sloping plateau, the remaining area of the city spreads out over a steep descent. Upper city and lower city are separated by special fortifications. The approach to Khirbat al-Mu'ammariyya leads through a western pathway winding its way up the slopes of Jabal al-Mu'ammariyya, running around the site and leading up to a saddle from which a small path leads to a gate situated in the southern city wall near the citadel. A second ascent approaches the city from the east leading through the steep slope directly beneath Khirbat al-Mu'ammariyya.



Tower after Excavation

This year's soundings concentrated on a round tower-like structure to the south of the site. This tower is situated on the route to Wādī ash-Shuqayfāt which would have provided a perennial source of water for the people living on the site. On the basis of the pottery the tower is dated to the Iron I and therefore associated with the main site. A round tower in the Iron I is unique for this area (the northern Central Moabite plateau). We also opened the last room of the southern casemate wall. It formed the corner of the casemate wall that runs from the citadel down to the lower part of the site and before turning to run in a northern direction. In addition, we opened some rooms that are situated adjacent to the casemate wall. The results revealed a building strategy designed to cope with the steep slope of the site.



excavations were conducted in six different fields, A-F. In Field A, excavations penetrated ancient debris layers that were full of pottery from the Iron II (8th century BC), Iron I (12th-10th centuries BC), the Late Bronze Age (1550-1200 BC) and the Middle Bronze Age (ca.1800-1550 BC). The large quantities of pottery from these time periods point to significant occupation of Jalul during these early times. In Field B several additional meters of an 8th century BC road that approached the gate of Jalul were found. In Field C the north wall of a large Late Iron II/Persian period building was found (5th century BC) as well as a small stretch of cobbled street and a wall fragment of a building from the Iron II (8th century BC) were uncovered. In field D, the roof collapse of a Late Iron II/Persian period house was removed to reveal ancient pots and figurines that were left inside the building when it was destroyed. The project hopes to continue its work next year.

Wādī Zarqā Ma'in

Project Name: Wādī Zarqā Ma'in Paleolithic Project

Duration: May 10- 25, 2005

Number of workers: 6

Cost: JD 4,000

Sponsors: University of Victoria and McGill University/Canada

Directors: Dr. April Nowell and Dr. Michael Bisson

Representative: Mr. Abdellah Al Bawareed

The primary goal of this survey was to locate a stratified Middle to Upper Paleolithic site in the Wādī Zarqā Ma'in to study through future excavation specific questions concerning hominid migration, Neanderthal survivorship, the emergence of modern behavior, and the nature and timing of the transition from the Middle Paleolithic to the Upper Paleolithic. We located our survey in Jordan because it is in the Levant where there may be the oldest evidence for the transition from Middle Paleolithic to Upper Paleolithic human adaptations and where Neanderthals and modern humans existed concurrently or alternately nine times longer than in Europe.

This spring we located and tested a stratified Middle Paleolithic flint processing site (ZM-2) with a possible transitional (MP to UP) component. A relatively dense surface scatter of large flakes was located in a nearby wheat field to the northwest of the site. This locale may represent an open-air campsite, and is in urgent need of further investigation. Because there is a strong relationship between our research questions and variables such as demography, resource exploitation, land use and settlement patterns we conducted an extensive survey of the surrounding area and uncovered a number of other sites most of which consisted of surface scatters. Nonetheless, we will use these data to develop and test models of settlement geography in order to better understand the cultural and ecological factors that facilitated or limited hominid migration in this region of the Levant. At several of the sites OSL dating samples were taken in order to obtain chronometric dates for the Middle Paleolithic (very few dates for this time period in the Levant exist) and samples were also taken for pollen and phytolith analysis.

Tourism Potential and Recommendations: The sites we uncovered are in urgent need of excavation and we will apply for funding to return next year to continue our research. In addition, in cooperation with the Madaba office of Antiquities we will develop a museum display showcasing some of Madaba's and humanity's earliest history.



(top row, from left) Levallois flake core, Levallois blade core and Levallois point core from ZM-3.
(bottom row) 3 Levallois flakes from ZM-2.



The entire site was cleaned and a system of paths, platforms and signs was planned to allow the circulation of the visitors around the antiquities and explain the stratigraphic relations and history of the site. Stone gardens were organized in proximity to each square. The site is to be presented as an open air museum.

An unexcavated area of about 3x4m remained at the beginning of the staircase leading to the acropolis. One square (R9.1) was opened and excavation reached a depth of about 1.65m. No structures were identified. A piece of a Roman classical entablature was found which had probably fallen from the summit of the tall. No complete objects or coins were found.

The excavation of this square opened the view of the so-called "Roman plaza" from East. The area of the "Roman plaza" was cleaned up, exposing the Roman structures excavated in the 1968, 1971, 1973, 1974 and 1976 seasons. Those structures are composed of a complex of rooms with a curbstone line running north-south on the East; a curbstone line running north-south and a paved area (huwwar layers) on the West; and a monumental stairway northwards. The policy of restoration in this project lies in exposing the excavated structures to clarify the stratigraphic relations and not giving preference to one specific phase over another. The reconstruction works have to be limited to those structures in immediate danger of collapse, or to cases when anastilosis is applicable, or where a scientific and well documented historical reconstruction is possible. The complex of rooms was therefore exposed and cleaned up.

The paved area (huwwar layers) cut by the former squares was backfilled to the level of the higher huwwar layer in situ. Two stones of a curbstone line continuing southwards, which were in place in 2001, collapsed and were restored with a thin bedding of mortar. The southeast tower, the church and the northern gate were mapped at 1:20 scale.

Phase II is planned for 2006, from January 21- till March 23. The goals are the restoration of the Southeast tower and the Northern gate and wall. A preliminary season of excavation in the area of the tower was concluded in 2004. That excavation did not reach bedrock and the inner area was not excavated. Phase II may begin with a preliminary season of excavation of the tower.

This project was funded, in part; through Grant # SJO10005GR042 the opinions, findings and conclusions or recommendations expressed herein are those of the Author and do not necessarily reflect those of the Department of State.

The restoration project of Tall Hisban is a partnership between Andrews University, Department of Antiquities of Jordan and the Municipality of Hisban. Funded by the Department of State of America through the Ambassador's Fund for Cultural Preservation .

Tall Jalūl

Project Name: Excavations at Tall Jalūl/ Madaba Plains Project (MPP)

Duration: May 9 -June 16

Number of workers:

Cost:

Sponsor: Institute of Archaeology, Andrews University/USA

Director: Randall W. Younker and David Merling

Representative: Bassam Al-Mahamed and Khaled Al-Hwwre

Excavations were conducted at Tall Jalul east of Madaba, by Andrews University in consortium with the Mādabā Plains Project (MPP).

The goals of the project have been, in part, to illuminate the cultural and political history of both the site of Jalūl and its immediate region during the last 5000 years. This season



Roman Plaza and paved area





buildings that combined evidence for domestic life (cooking, food-preparation) with evidence for small-scale industrial production (iron and glass making). Our most spectacular discovery this season was a small hoard of 30 bronze and copper coins that we found buried beneath the floor of one of our buildings. These coins have not yet been analysed closely, but they all appear to be Mamluk in date and origin, perhaps from the 14th century AD. These coins will help us date more precisely when the occupation of Dhiban peaked and when it began to be abandoned.

Beside our work on the Mamluk village, we also cleaned and excavated a small portion of the edges of an old trench left from excavations in the 1950s and 1960s. Here we were able to trace the history of Dhiban back from the Mamluk period to the Iron Age. These superimposed layers show us that Dhibān was heavily occupied between ca. 850-700 BC, during which time several very thick and well-constructed plaster floors were laid, presumably for a large building. These results support the idea that Dhiban was a very important settlement in the Iron II period, beginning at least from the time of Meshā.

Finally, Dr. Magda Sibley of the University of Liverpool School of Architecture, in collaboration with Jordanian colleagues, collected data this season to help draft a plan for developing Tall Dhibān and making it more attractive and easier for people to visit and interpret the history and archaeology of the site.



Barrel-vaulted buildings

Tall Ḥisbān

Project Name: Tall Ḥisbān Restoration Project – Phase I

Duration: July 24 – August 27, 2005

Number of workers: ?

Cost: JD5550

Sponsor: Department of State of America and Andrews University/ USA

Director: Dr. Oystein S. LaBianca (General Director), Co-director and Chief Archaeologist: Dr. Bethany

Walker and Chief Restoration Archaeologist: Arch. Maria Elena Ronza

Representative Sabah Abu Hudeib

The restoration project at Tall Ḥisbān¹ consists of four phases as follows: I) Roman plaza and preliminary restoration studies with further excavations to completely expose and restore the stone-slab pavement; II) Southeast tower and Northern Gate and Wall: Excavation to clarify the architectural phases of the tower and the northern wall with preservation, consolidation and restoration as needed; III) Byzantine church and Underground Structure: Several columns and capitals of the church to be raised up. The underground structure will be cleaned, preserved and consolidated; IV) Fence and gate: The present entrance and parking lot at Tall Hisban does not permit large tour busses to enter and park. A new, larger gate will be constructed, along with an improved parking lot, which will greatly improve the situation for tourists.

Phase I lasted five weeks. The main aims of the season were:

- 1) to clean the site in order to clarify the tourist pathways and the structures exposed during the past seasons of excavation;
- 2) to expose the so called “Roman plaza” that was excavated between 1971 and 1976 and restore it as needed;
- 3) to map and analyse all the structures that are to be restored in the following phases in order to prepare a detailed plan for restoration.



A piece of an entablature



One aspect which should not be underestimated is that of inspecting the research and conservation work carried out over the last few years. In particular protective work tried out on the crests of the village walls as well as in filling lacunae in the masonry will be re-examined. The work so far should be considered as experimental and providing opportunities to train the local labour force which had never previously been engaged in restoration work. The solutions adopted for the “educational restitution” of no longer existing structures and signs indicating lost channels, floors and walkways will also be carefully studied, not only from a technical point of view but also in terms of their educational effectiveness.

Tourism: From the car park area visitors walk down to the saddle and then upwards, following the remains of the aqueduct or along the pedestrian path running along the flank of the mountain. Alternatively, visitors may descend along the cisterns road. An interesting addition to the visit is to view the siege blockhouses on the ridge. We envisage the production and installation of signs and boards to provide educational information on the fortress and village and also provide an overview of the larger area from Libb along the Kings Highway as far as the Dead Sea.

Recommendations: The research has produced interesting results concerning both theoretical and operating aspects. Inspection has confirmed the quality of the work and indicates promising new directions for research in the future. Further inspections will have to be made once more time has elapsed.

Respect for existing artefacts and local cultures has led to the rediscovery of local materials and construction techniques (or, maintenance techniques, more rarely), which constitute the essential basis for any operation we wish to perform in this region. One result, certainly important today, but fundamental for the future, is knowledge of the ancient mortars and the use of local materials. The singularity of the situations (cultural and socio-economic) of the areas where we intervened was considered in all the survey steps and site interventions.

Tall Dhibān

Project Name: Tall Dhibān Excavations

Duration: July 24 -August 8, 2005

Number of Workers: --

Cost: JD11600

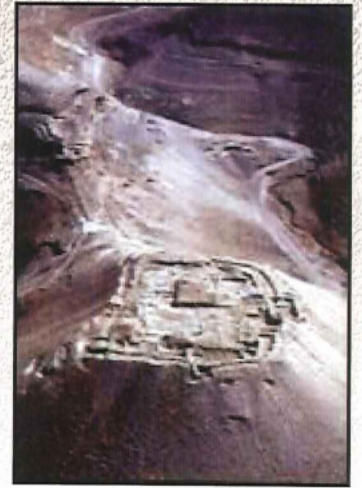
Sponsor: University of Liverpool, The British Academy, The University of Pennsylvania and Stanford University

Director: Bruce Routledge, Benjamin Porter and Danielle Steen

Representative: Zuhair al-Zoubi

Tall Dhibān is best known for the discovery of the Mesha Inscription (“Moabite Stone”) in the 19th century and for its role as capital of Moab in the Bible. Scholars have, therefore, tended to concentrate on the Iron Age (or “biblical period”), when discussing Dhibān, often to the exclusion of other periods. This is unfortunate as the most substantial and accessible period of occupation of the site is probably during the Mamluk era, a period that is not well-known in terms of archaeology.

Our excavations have focused in their first phase on this Mamluk settlement in order to balance our knowledge of the history of Dhibān and to answer some important questions regarding why so many villages like Dhibān were abandoned towards the end of the Mamluk era (15th century AD). This season we continued to excavate a series of barrel-vaulted



Coin appears to be Mamluk



deposits, made up of siliceous calcareous rocks, marnes, calcarenites, calcareous breccia and hard ground with level ferruginous areas, all illustrating the complexity of the environment when it was formed with a hot arid climate, in shallow water, and the introduction of presumably aeolian siliceous material. We classified the properties of the material (stone, mortar etc.) and assessed degradation forms, structural stability and seismic risks.

C- Anthropological investigations. The intention in this first stage of investigation has been to carry out reconnaissance of ruined architectural features belonging to ancient stone dwellings of the traditional Jordano-Syrian type and the more recent cement brick constructions built by the local population for housing and other purposes. We examined the types and positioning of architectural features and compared the placement of current habitation to more ancient settlement to revise land use maps which do not include recent developments. We consider that the results of this first stage of the work provide a substantial contribution to works of architectural restoration aimed at conserving the architectural heritage in Jordan. These represent a development opportunity for the local population as they allow work to be conducted on the basis of more secure knowledge.

D- Restoration work: The extremely harsh climate subjects structures to continuous variation in terms of temperature and humidity, causing enormous stress to the construction materials. The presence of saline aerosols contributes further to deterioration, above all due to the continuous changes in the state of the salts. The considerable temperature and hygrometric range leads to salts passing from the solute to the crystalline state. These phenomena are accelerated by the considerable windiness of the site. This work was to identify the mortar mixtures to be used to make good the gaps in the plaster and to consolidate dangerous walls. The use of inert substances behaving like pozzolana allows the behaviour of mortars based on pure lime made hydraulic with inert matter to be studied. The choice of components used will provide useful comparative information on the efficacy of the binders. The mixtures used were based on materials which can be easily found at the location, produce the range of colour tones necessary for the site. An evaluation of these mortars a few months from now could involve measuring the hardness and water absorption as a test.

The restoration strategies are governed by the overriding need to respect the materials and building and settlement traditions. The approach adopted in the restoration work is that of micro-intervention to tidy up, clean and consolidate and to carry out protective treatments. Inspection of these at a later date will determine whether or not such measure will be extended on a greater scale. Local history can foster the local population's cultural awareness toward the problems of conservation and to the development of more appropriate sensibilities on the part of visiting tourists. The project puts a great deal of emphasis on the need to instil awareness of the necessity for a programme of long term ordinary maintenance. This represents the most effective means of preventing new processes of decay being set in motion. We intend to communicate the results so far obtained through a publicity campaign aimed at a wider public, beyond scientific reports.

Results: The condition of the fortress's architectural structures (walls constructed above ground – peristilium, termae and the water system -cisterns dug into the rock and- water pipes) is adequate, but there are occasional precarious local situations. The whole area has the typical symptoms of unprotected open-air archaeological areas. The natural ageing of materials and the wear of the structures are worsened by inclement environmental conditions linked to a wide range in terms of hot-cold, dry-humid, calm-windy conditions. The surveys which have been repeated for more than a decade and the diagnostic monitoring carried out allow us to maintain reliable case notes for the ailing fortress, to explain the degenerative mechanisms (deterioration of the materials and disintegration of the structures), and to define the dynamics over time (current pathologies and the speed with which these phenomena occur in a sporadic manner or, more frequently, in a cyclical manner).

The archaeological digs and the works of restoration are suspended at present but the project is continuing in the form of research work on the surface and small maintenance operations. Updating the graphical survey and documentation both add to the completeness of the archives and permit effective checks on the conservation work already carried out, making priceless analysis of the degenerative process at work and the speed at which they develop possible.



Qal'at al- Mishnaqa Fortress/ Makāwir)

Project Name: Machaerus Plan for Restoration, Maintenance and Tourism Development

Duration: several years

Number of workers: 6

Costs: (05-06 Season): Euro 20,000

Sponsor: University of Florence and Italian Ministry of Foreign Affairs/ Italy

Director: Prof. Architect Luigi Marino (Florence University's Department for Restoration and Conservation of the Architectural Heritage) and Architect Khaled Jayyusi from the Housing and Urban Development Corporation)

Representative: Architect Moh'd Ali al Khatib

Historical Background: The fortress owes its fame to Flavio Giuseppe's account of the decapitation of John the Baptist at the order of Herod Antipa. Machaerus was founded by Alexander Ianneo (90BC) as a stronghold of Asmonean power against the Nabataeans of Petra. Destroyed by the Roman governor Gabinius in 57 BC, it was rebuilt during the reign of Herod the Great (37- 4BC) as one of the most important of a great system of fortresses. The system included Machaerus, Jerusalem, Masada, Hyrcania (in the desert of Juda), Alexandreion (protecting the wadi Qelt), Kypros (with its castles of Threx and Taurus controlling the road to Jericho), Herodium (the summer residence near Bethlehem which was to become his tomb) and another Herodium to the east of the Jordan. Upon his death the fortress became a part of the tetrarchy of Herod Antipa until it fell under the control, in 37AD, of Agrippa, the new king of Judea and vassal of Rome. During the Judaic revolts, from 66- 74 AD, the fortress was one of the bulwarks against Roman rule until it was finally destroyed by Lucilius Bassus in 72 AD. U. Seetzen visited the site in 1807 and recognised its palace. E. Smith discovered the remains of an ancient water system a century later. The first archaeological digs were by G. Vardaman in 1968 while A. Strobel (1973) documented the Roman siege system of blockhouses, walls and assault ramps. Current knowledge of the fortress and the village is associated with the digs of the Studium Biblicum Franciscanum (1978-1981) and the University of Florence.



These investigations have begun to shed light on the fortress's various construction phases, namely:

- a) The Asmonean (limited portions of towers and walls);
- b) The Period of the Herod the Great (the water system, strengthening of defences, re-organisation of the peristyle area and the thermal system);
- c) The period of Herod Antipa and Agrippa (general reorganisation);
- d) The period of the Roman administration and the revolts (destruction and temporary reoccupation);
- e) The Byzantine period and salvaging of materials for the building of the village.

The research and restoration work conducted at Qala'at al- Mishnaqa in October 2005 had four different components: a survey of wall structures; a geological survey; anthropological investigations on the villages in the area from Libb to Makawir; and consolidation tests and plaster experiments.

A- Survey: More detailed survey on the wall structures of the mountainside towers and cisterns was carried out. The methods used were those tried and tested on other occasions but strategically adapted to the peculiarities of this place. In particular new ways of working were tried out when studying the hypogeum cisterns and the excavation faces.

B- Geological Survey. The lithologies in the Machaerous area involve a series of proximal ramp carbonate



Khirbat al-Mudayna

Project Name: Wādī ath- Thamad Project

Duration:

Number of workers:

Cost:

Sponsor: Wilfrid Laurier University

Director: Dr. P.M. Michele Daviau

Representative: Mr. Jihad Harun

The research conducted by the Canadian archaeologists this summer extended the knowledge of the military and economic history of the Iron Age settlement at Khirbat al-Mudayna. Excavations revealed massive, stepped retaining walls that had made it possible to build a strong gate, tower and bastion above the steep north face of the tell. A sloping stone pavement was also uncovered and a level plaza was cleared in front of the gate. Inside the settlement a road was uncovered leading from an open square behind the gate to two multi-storied pillared buildings that appear to have been textile-making establishments. Indirect entrances sloped downward from the road to the lower stories of these buildings. Loom weights, storage jars, stone basins and small pieces of textile were found in these buildings and adjoining storerooms. Several alters were found along with three limestone tables or stools, one of which was elaborately carved. Several caches of hematite which could have been used for making dye were found. Much of the material in these buildings had fallen from an upper story when it was burned around 700BC. Evidence of more buildings was found across the newly discovered road from the industrial structures. Excavation continued this season at the highest, southern end of the mound where an Egyptian-style scarab was found last year. Loom weights, grinding stones, storage jars, painted jugs and a basin were found this summer, along with evidence of a burned and collapsed upper story. Clearance of the large Nabataean reservoir at the foot of the mound was completed and an elaborate water-control system of stone barrages and rock-cut drains was uncovered between the reservoir and a hill to the east. Additional survey work to the north and east of the Nabataean buildings was undertaken to identify the complete water management system of the Nabataean settlers at Khirbat al-Mudayna in the early Roman period. This year the project included a team specializing in burial excavations led by Dr. Margaret Judd of University of Pittsburgh in the United States. Many cemeteries were found within walking distance of Khirbat al-Mudayna dating from the Nabataean, Roman and later periods. Scores of excavated graves were also found, indicating extensive grave robbing in the area. Next year, the project plans to undertake more work on the Iron Age tall and the Nabataean settlement at its foot. Further planned surveys will find additional sites in the vicinity. The work was part of the eighth season of the Wadi ath- Thamad Project, which included students, scholars and volunteers from Jordan, Austria, Holland, Germany, Iran, Iraq, Mexico, the Netherlands, Spain and the United States.





'Ayn Jadīda

Project name: Excavation at 'Ayn Jadida

Duration: March 31- May 12, 2005

Number of workers: 2

Cost: JD 3340

Sponsor: Carsten Niebuhr Institute and the Danish Palestine Exploration Fund.

Director: Peder Mortensen, Ingolf Thuesen and Inge Demant Mortensen

Representative: Ali al-Khayat and Reem al-Shqour

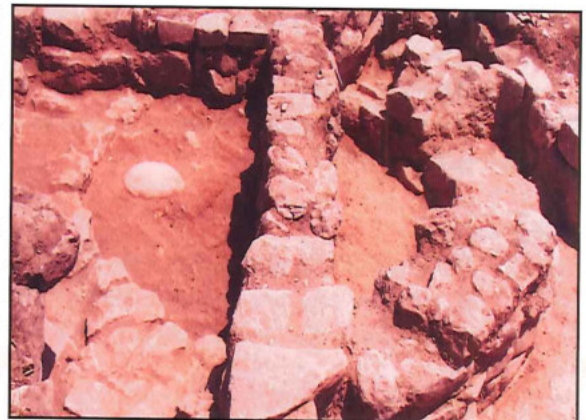
The site is situated above 'Ayn Jadida a few kms southeast of Mount Nebo. It was first described by Colonel C. R. Conder in his "Survey of Eastern Palestine" in 1889. Above the spring of 'Ayn Jadida he found what he described as a large, oval platform surrounded by a rubble wall. In order to determine the date of the monument and possibly to get an idea of its function a detailed map of the site was finished in 2005. The investigation showed that the central platform, with a diameter of approximately 45m, was surrounded by a rampart, 25-30m wide, and founded on bedrock, sloping towards north and east, so that the height of the rampart varies from c. 3 to 8m above bedrock.

The rampart seems to be polygonal. Sherds of Chalcolithic/Early Bronze Age date were found on the surface of the rampart. The same age can be attributed to a large building; the stone foundations of which were discovered just below the surface of the central platform. A total area covering approximately 220 square meters has been excavated so far. A large number of coarse Chalcolithic/Early Bronze Age sherds were found in the rooms together with flakes of flint.

Situated between a Late Chalcolithic/Early Bronze Age settlement and a high plateau with more than a hundred dolmens overlooking the large polygonal platform with its impressive rampart and its major central building - all of the same age - "Conder's Circle" is a unique and extremely important prehistoric monument that can hopefully be preserved as a part of Jordan's national heritage.



Large central room looking S



Circular structure cut by later wall



Coring did not reveal any possible grave locations. It is clear that there was no grave on the hilltop. Seven cairns on the three adjacent hills were examined. All had been dug into by treasure hunters. Only one had human bones in the back dirt. This suggests that only a few of those cairns were tombs or graves.

Report by Philip Wilke

The area around Qā' Muqallah has been surveyed twice for prehistoric sites, first and most intensively by A.V.G. Betts as part of her Black Desert Survey (1982). Later in 1999 Wilke and Quintero renewed reconnaissance survey in the area, recording a number of Neolithic-age lithic sites, rock art sites, and kite sites, as well as other sites dating from the Middle Paleolithic to probably Byzantine times and later (Wilke 1999).

The most conspicuous presence in the immediate area around site Wādi Rājil-3 (the rock art site with many Safaitic inscriptions on small and large stones being studied by P. Bikai) is Neolithic in age. On the basis of artifact types present in surface assemblages, the recorded Neolithic sites appear to span the range from the Middle Pre-Pottery Neolithic B (PPNB) through the Pottery Neolithic (PN), and continuing on into the ensuing Chalcolithic and Early Bronze.

Sites attributed to the PPNB are generally of three types. First are several large and impressive lithic scatters representing blade factories. Surface artifacts on these sites include typical naviform blade cores. One of these sites lies only two kilometers to the East of Wadi Rajil-3. The site appears to have been a hunting overlook.

A second PPNB site type consists of ancient corrals, other enclosures of basalt stones, in and around which are lithic scatters. The retouched artifacts are mostly concave-truncation burins that tentatively date these sites to the late Neolithic, perhaps the PPNC or Pottery Neolithic. Sites of this type are visible everywhere around Qā' al-Muqallah, and their presence is seen as a result of the abundant building material that occurs at the extreme edge of the Black Desert and abundant pasturage that formerly existed there.

Finally, both Middle and Late PPNB sites occur in association with rock art of apparent later age at Qā' al-Muqallah and 10 kilometers or more upstream in the drainage of Wadi Rajil. The rock art probably is a later component on these sites. It includes naturalistic depictions of the then local fauna, much of which has since been extirpated, scenes of hunting with archery equipment, horse and rider motifs, camels, and Safaitic and Arabic inscriptions. Other rock art sites of similar character lack the Neolithic component, suggesting that the rock art was executed in post-Neolithic times.

References

- Betts, A.V.G. 1982 Prehistoric Sites near Qā' Mejalla, Eastern Jordan. *Levant* 14:1-31.
Wilke, P.J. 1999 Investigations of Pre-Pottery Neolithic Use of the Jordanian Desert.
ASOR Newsletter (American Schools of Oriental Research) 49(4):23.



Wādī Rājil-3 in Qā' al-Muqalla

Project Name: Documentation of the Cairn of the Mermaids

Duration: July 31- August 4, 2005

Number of workers: 7

Cost: JD7930

Director: Dr. Pierre Bikai; Prehistorian: Dr. Philip Wilke; Physical Anthropologist: Dr. Jerry Rose; Surveyor: Fawwaz Ishaqat

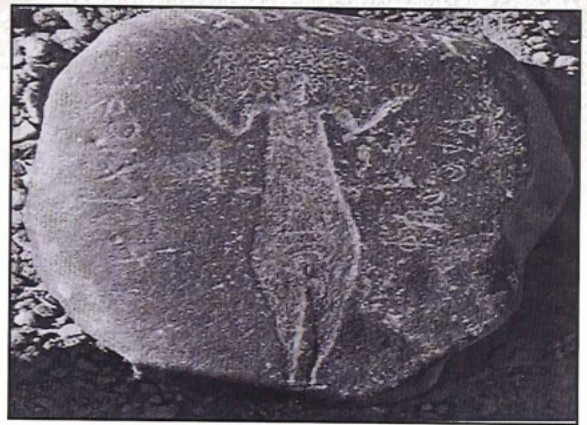
Representative: Salem Diab

Introduction by Pierre M. Bikai

The area around Qā' al-Muqalla has previously been surveyed and partly documented. In this phase of the project, the Cairn of the Mermaids was completely recorded and probes were made. The intention of these probes was to determine the function of the Rujum and of the circular structures adjacent to it. The cairn was removed temporarily and a sounding of 2m x 1.5m was dug to a depth of 2m where possible; it was not always possible because of the very large boulders encountered. At that depth there were boulders on virgin soil. Three other test trenches were excavated; two in the center of the circular structure and one under a pile of stones which forms a rectangle; the sort of structure that is usually put over a tomb.

One of the trenches revealed flat bedrock and the other two hard packed soils. These trenches indicated that none of the areas were ever used for burials. At the end of the excavations every stone was put back where it belonged and the landscape returned to its previous form.

In addition to the excavation there was mapping work in which each stone with writing or drawings on it was numbered and entered on to the plan. During the excavation period new texts and rock art were located at the Cairn of the Mermaids and added to the data base. After consultation with Dr. Fawwaz al-Khraysheh, some of the portable texts and petroglyphs were moved to Azraq or to ACOR for conservation.



Rock art (Horse and rider motif)

Report by Jerome C. Rose

Excavation of the first rock cairn was started by removing all stacked rocks, and then the tan/brown soil. As excavation proceeded areas of mineral consolidated soil were encountered and removed. The area between large boulders too large to be removed became narrower and narrower. There was no evidence of previous excavation or grave construction. All strata encountered appeared to be natural.

The second cairn was excavated. Rocks were removed and soil excavated. Again, the tan/brown soil was more consolidated as excavation progressed and ultimately large boulders were encountered. Some boulders were so decayed that they could easily be broken up with a shovel. There was no evidence of previous excavation or grave construction.

Two excavations into the stone circle were conducted and quickly encountered large boulders that could not be moved in the past or the present.



Conservation for Nature. It is an important tourism location in the Azraq region and frequently attracts many visitors. 'Ayn Qaysiya can help to improve the tourism profile of the Azraq area, by combining aspects of the prehistoric occupation and use of the Azraq marshlands with issues of nature preservation and ecology, as have been developed by the Royal Society for the Conservation of Nature.

Jabal al--Muṭawwaq

Project Name: Excavations at Jabal al-Muṭawwaq

Duration: June6- 24, 2005

Number of workers: 4

Cost: JD1700

Sponsor: Ministry of Culture of Spain and University of Oviedo/ Spain

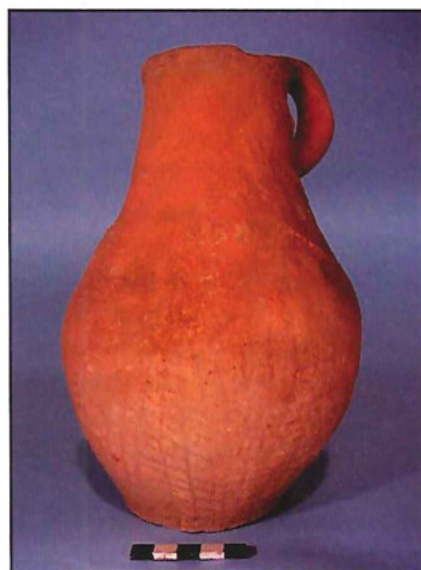
Director: Dr. Juan Fernández- Tresguerres Velasco

Representative: Mr. Aref Eddhethem

Excavation continued in the yard of House 76 (excavated in previous seasons) and in House 75, located in the south-east of the same yard. House 75 consists of a structure of the "broad house with oval ground plan" type, built with big blocks of stone placed on bedrock. The southern perimeter wall was not located. The house was divided into two rooms separated by wall foundations built with three big prismatic stone blocks; this area was filled with ashes.

The west room is 2.41m E/ W by 3.52m N/S. The eastern part of the house is 3.55m. E/W by 3.87m N/S and contains a big flagstone held on two smaller blocks that could have been used as a table. Excavations at the end of the stepped slope in the yard uncovered four structures: Structure 1: This is located at the end of the north wall of House 75. Its shape has not been emphasized due to collapsed walls and earth. Structure 2: This measures 2.92m wide N/S by 1.96m long E/W, and has a height of 5m. The east door of the adjacent room measures 0.89m in height by 0.41m wide. It consists of an access room from the stairs of the yard towards Structure 3. There is a stone bench in the north part which takes advantage of a natural bedrock step. Structure 3: This measures 2.56m long E/W by 3.47m wide N/S. The access is formed by a door built with two prismatic door-jamb and a threshold formed by three lined up stones. The room is divided into two parts; the south-west part is located between the wall of the medium-sized blocks and the step of bedrock, with a floor of compacted earth. In the north-east part, on the rock step, a well structured cist was built with well fitted plain stone blocks.

Structure 4: This is located in the east of a natural stair formed by bedrock. It consists of a circular-shaped structure surrounded by small size blocks and by the bedrock, with a threshold at the entrance. It measures 2.64m E/W by 2.76m N/S. The pottery: All sherds found belong to Early Bronze Age I (jars, hole-mouth jar and a bowl). One complete jar with a vertical handle and red paint that covers almost all the lower part of the body was found. The decorative pattern consists of a complex net-work of oblique lines which turn into zigzag lines



Decorated Jar



Stone Bench



'Ayn Qaysiya, Azraq Wetlands Reserve, Azraq

Project Name: 'Ayn Qaysiya Epipalaeolithic Project

Duration: October 3 -24, 2005

Number of Workers: 3

Cost: JOD 2,959.00

Sponsor: Institute of Archaeology, University College London/ Department of Anthropology/UK and University of California Riverside/USA

Director: Mr. Tobias Richter

Representative: Mr. Husain Askar

The Azraq Basin in the eastern desert of Jordan has been a focus for prehistoric research for more than 20 years, and many important sites have been discovered and excavated in and around the Azraq Oasis since the early 1980s. In 2000 a survey team, led by Gary Rollefson, Leslie Quintero and Philip Wilke, studying the Azraq Wetlands Reserve discovered the remains of a well-preserved early Epipalaeolithic campsite at the extinct spring of 'Ayn Qaysiya. The organic nature of the deposits, as well as rich concentrations of material culture and animal bone, promised that a detailed record of the Epipalaeolithic occupation of the Azraq marshlands was present at the site. In particular, the potential for the recovery of plant remains, such as seeds and pollen, was considered to be high.

The continuous and ongoing process of drying out and erosion in the Azraq Oasis however suggested that the site's good preservation conditions were threatened and rescue excavations were considered necessary. The aim of these rescue excavations at this initial stage was to document the current exposure of the site in the exposed faces of 'Ayn Qaysiya, to understand the nature of preservation in the deposits, and to verify the horizontal extent of the site.

For this purpose one main area of excavations measuring 3x4 meters was opened towards the eastern edge of the site and two test trenches were opened towards the western half of the site and four sections in the faces of the 'Ayn Qaysiya spring were also recorded. The excavations revealed a material culture repertoire dominated by microlithic chipped stone artifacts, although bone and ground stone artifacts were also recovered. Abundant animal bone remains were also found.

The excavations in 2005 showed that Epipalaeolithic 'Ayn Qaysiya extends beyond the exposures visible in the faces of the spring's pool, and that good preservation conditions can be expected for most areas of the site. A number of surfaces were also recognized in the sections, which offer an opportunity to understand the spatial setting of Epipalaeolithic campsites in more detail. This aspect, in conjunction with the good organic preservation expected and confirmed by our excavations, provide many future avenues to deepen our understanding of the Epipalaeolithic in the Azraq Basin and beyond. Future excavations at the site, involving a larger team of excavators and specialists are planned for 2006. Given that erosion continues at a high rate in the Azraq Oasis, it is vital that this fragile archaeological site is studied in more detail in the future.

As 'Ayn Qaysiya is situated in the Azraq Wetlands Reserve, which is administered by the Royal Society for the



Overview of 'Ayn Qaysiya before excavation looking NW.



Collection of bone tools, microlithic stone tools and stone scrapers from 'Ayn Qaysiya



SIGNIFICANT MONUMENTS AND SITES IN THE AREA

Nearby sites and notable features of the area include Tall al-Kafrayn, Tall Nimrin, Tall Mustah and Tall Bulaybel (all with similar periodization). There are also several large dolmen fields nearby, and seemingly extensive ancient cemeteries.

RESULTS

The stratigraphic profile of Tall al- Ḥammām has long been suspected, but has needed to be confirmed by excavation. The 2005-2006 seasons has helped to develop a theoretical stratigraphic profile based on observations from extensive sherding, clearing and clarification of modern military trenching disturbances, and the results of scientific excavation. EB, MB and Iron Age occupation dominate the site, with a minor Late Hellenistic/Early Roman presence in isolated areas.

TOURISM POTENTIAL

With a reasonable identification of Tall al- Ḥammām as biblical Sodom, the tourism potential for this site is immense.

RECOMMENDATION

Tall al- Ḥammām may indeed hold key pieces of the archaeological puzzle from which a greater comprehension and appreciation of the regional history can emerge. The Project team wholeheartedly recommends that The Tall al- Ḥammām Excavation Project continue into the next full season scheduled for winter 2006-2007.



Tall al-Ḥamām/Al- Kafrayn

Project Name: The Tall al- Hammam Excavation Project

Duration: a seven-year project beginning winter 2005-2006

Number of workers: 19

Cost of the Project: \$86,000

Sponsor: Trinity Southwest University and International Archaeology Projects

Director: Dr. Steven Collins

Representative: Mr. Moh'd Ali Al Khatib

Tall al-Hammam is located 8 km north of the Dead Sea, 12 km east of the Jordan River, 8 km south of the modern village of Ash-Shuna South (the location of Tall Nimrim), and 1 km south of the al-Kafrayn Dam. Tall al- Hammam is the largest of the Jordan **Disk**? sites. The tell proper spreads just over 800m from east to west and from 200m to 400m north to south. Thus, the site footprint is about 175 dunums (just over 40 acres). These dimensions approximate the areas of the site occupied in more remote antiquity, from at least the Early Bronze Age through the late Iron Age. There is, additionally, ample evidence of a Hellenistic/ Early Roman Period occupation off the main tall to the immediate south.

HISTORICAL BACKGROUND

Dr. Collins' research suggests that Tall al- Hammam is the most-likely candidate for biblical Sodom, based on a detailed analysis of the relevant biblical data regarding the date and location of the city. Nearly five years of preliminary research, and now the completion of the first excavation season, demonstrate that this theory is highly plausible, if not probable. Owing to the fact that the MB is not well-documented in the area, Area U (the upper tell) may hold the key to understanding the entire region during that period, a reasonable expectation based on the ceramic profile derived from both surface and *in situ* excavation contexts together with the fact of its dominant size and strategic location. The lower, western extent of the site boasts an Early Bronze Age city of no small proportions (at least 111 dunums inside the city wall). The sheer size of the EB city, suggests that it must have been a towering regional influence during that period.



AREA EXPLORED THIS SEASON

Excavation concentrated on the upper tell (Area V), with six 6x 6m squares spread over Fields A, B, C and D, representing principally Iron Age and Middle Bronze Age occupations.

The goal of the multi-year Tall al-Hammam Excavation Project is to study the relationship of this immense and strategically-located site within its ancient socio-cultural, economic and political contexts, and to ascertain its position, function and influence within those contexts. In addition to this broader focus incorporating historical and archaeological data from neighboring sites in the southern Jordan Valley and beyond, the Project will study the site as a microcosm of life and activity within its own local environment, seeking to determine its phases of settlement, urbanization and the reasons for its decline, destruction and or abandonment at archaeological period interfaces. Within this micro-context the Project seeks to shed light on how the inhabitants of Tall al- Hammam adapted to the local environment and environmental changes, and utilized available resources, enabling them to attain levels of city planning and building on a resultantly large scale.



Dayr 'Alla

Project Name: Settling the Steppe: The Archaeology of Changing Societies in Syro- Palestinian Dry lands During the Bronze and Iron Ages

Duration: September 12- October 30, 2005

Number of workers:

Cost: JD17959

Sponsor: Netherlands Organisation for Scientific Research (NWO), Yarmouk University Jordan and the University of Leiden

Director: Dr. Omar al-Ghul and Dr. Gerrit van der Kooij

Representative: Mr. Ziad Ghnaimat and Aktham Abbadi

The Dayr 'Alla Region is defined for this purpose as the area from Wadi Rajib to Wādi az-Zarqā' and Damiya. The present fieldwork was carried out within the multidisciplinary project: *Settling the Steppe: the archaeology of changing societies in Syro-Palestinian drylands during the Bronze and Iron Ages*, largely financed by the Netherlands Organisation for Scientific Research (NWO). Eighteen scientists, with different disciplines and fields of specialisation, were invited: twelve from the University of Leiden and six from Yarmouk University. The main goal of the project, which will take place over three consecutive years, is to connect the types and periods of use of the landscape with the history and character of use of Tall Dayr 'Alla and explain the varieties of use through ecological and social/political factors, with a focus on the Iron Ages. Comparison will also be made with a similar situation in northern Syria.

Sub-project 1: landscape survey (Ms. Eva Kaptijn)

This second season of archaeological landscape survey has principally focussed on the surroundings of Tall 'Ammata, where excavation was conducted within the scope of this project. Further areas of interest were the vicinity of Tall 'Adliyya, which was excavated last year and the fields around Tall al-Mazar have also been inspected this season.

A complete chronological sequence of finds dating from the Neolithic period up to the present day was discovered, indicating human use of the landscape throughout these periods.

Sub-project 2: Tall survey and trenching (Dr. Lucas Petit)

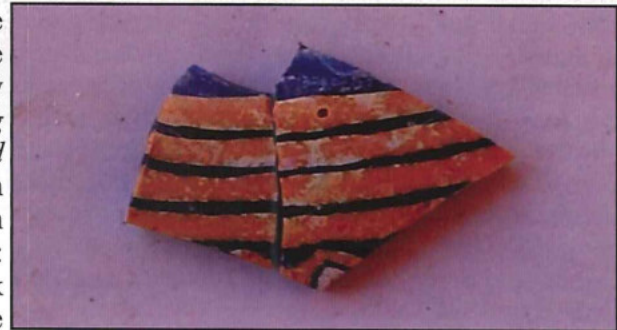
Two sites were studied, because of their relevant location, high availability of Iron Age material and the degree of recent destruction/damage: Tall 'Ammata and Tall Dāmya. The first revealed a good chronological sequence from the Iron Age II until the Early Islamic period. Excavations at Tall Dāmya revealed more Iron II layers.

Sub-project 3: Geoarchaeological and paleogeographical exploration (Dr. Fouad Hourani)

Geoarchaeological investigations during this second season were centred along the western bank of Wādi az-Zarqā', from Sawālḥa down to Dāmya, and on the alluvial fan of Ruwayḥa, to the north of Tall Dayr 'Alla. Several alluvial sequences were studied and compared together in order to: (1) identify major developments of the palaeolandscapes of the Dayr 'Alla region and (2), together with the two other sub-projects, to identify in its initial landscape unit every archaeological site previously reported in the region or newly identified by the current research. Three major stages of development of the landscape were identified.

Another season will follow and the processing of collected data as well as the study and publication will follow a tight schedule, to be finalised in 2008.

Final results, including this project's potential for tourism, are on the time of writing not known.





Tulūl Abu adh-Dhahab West

Project Name: Survey and Excavation of Tulūl Abu-adh- Dhahab

Duration: August 2-19, 2005

Number of Workers: 9

Cost: EUR 8,000

Sponsor: Dortmund University (Fakultat 14), Gesellschaft der Freunde der Universitat Dortmund,

Firma WECKBACHER (Dirk Rutenhofer, Dortmund / Germany), Dr. Axel Kracke

(Hagen/ Germany), Dr. Wolfgang Pola (Fehmarn / Germany), and other private sponsors

Director: Prof. Dr. Thomas Pola, Dortmund University

Representative: Ibrahim Zubi

Geographical location: (Formerly Tulūl adh- Dhahab) in the lower Wādi az-Zarqā'; the two mounds of Tulul Abu adh- Dhahab, are situated eight kilometers from the mouth of the Jabbok valley into the Jordan valley (measured from the Abu az-Zighān crossing in Dayr 'Alla). The Jabbok River separates the twin *talls* from each other in a small canyon.

Historical background and relation with ancient routes: To the West of the Tulul the Jabbok valley becomes too narrow for an ancient route leaving the nearby Wādi Hajjāj as the shortest route from Tall Dāmya to *al-Ard* (Gilead) and to the Ammonites. If the identification of "Pnuel" mentioned in the Bible with the Tulul is correct, the site was probably already occupied in the late Bronze Age. In the Iron I under Jerobeam I it became the capital of the Northern Kingdom instead of ancient Shekhem (Nāblus) and was the site of an important sanctuary (as indicated by the Jacob narrative). If this is the site of Pnuel, is there any evidence of its destruction by the Pharaoh Shoshenq as claimed in his Karnak inscription? If the new identification by W.M. Thiel of the Tulūl with the "Amathous" mentioned in the writings of Josephus is correct, this fortress of Theodorus of 'Ammān (late 2nd century BC) was destroyed by Alexander Iannaios, and again there may be evidence for this.

Goals: There are enigmatic ruins on terrace IV at the slope near the bulldozer cut made in 1997. These are missing from the map of R.L. Gordon (ADAJ 1983; MOOG 1984). They were surveyed and excavated to explore the dimensions of the ruins, establish their date and their function.

Most significant monuments in the area or site: There are ruins of a formerly splendid building (temple or palace) on the top of the western of the Tulūl. According to W.M. Thiel, the shape of the *in situ* tumbled pillars indicates a 2nd century B.C. date.

Tourism Potential: Tourists from the western world will associate the place with the Jacob narrative. Once the site of terrace IV has been excavated completely and if the columns on the top are re-erected the site will gain the interest of tourists.

Recommendations: A further field season will be necessary to expose the full dimensions of the constructions on terrace IV and enable their interpretation. The date and function of the splendid building on the top should also be established.



The Upper Temple of Zeus' Sanctuary

Project name: The Restoration of the Upper Temple of Zeus' Sanctuary

Duration: 08/2001 – 2006?

Number of workers: 8

Sponsor: Institut Francais du Proche- Orient (IFPO)/ Jordan

Cost:- ?

Director: Charles-Edouard BERTRAND/architect

Representative: Abdel Madjid Mjelli

A framework for the restoration of the Upper Temple of the sanctuary of Zeus in Jarash within the "International Jarash Project" has been implemented by a team of the IFPO and the Department of Antiquities since 1997; work started in 2001 and should continue to 2006.

The restoration of the temple of Zeus has revealed its original volume and aspect. The visual impact that it imposes on the landscape today makes this temple a must in a visit to the archaeological site of Jarash

The Cella

Restoration of the western walls of the cella was continued. The two western corners of the cella have been completely rebuilt, and the blocks of the alcoves were restored. (Missing elements will not be created.)

The western peristyle

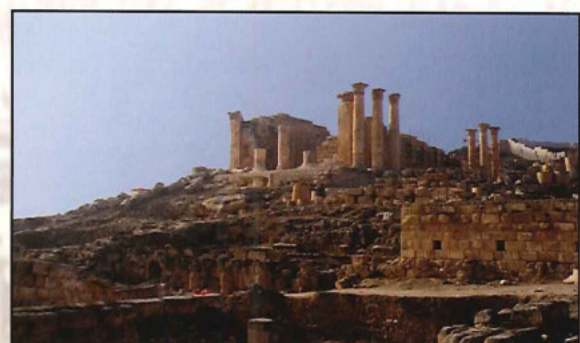
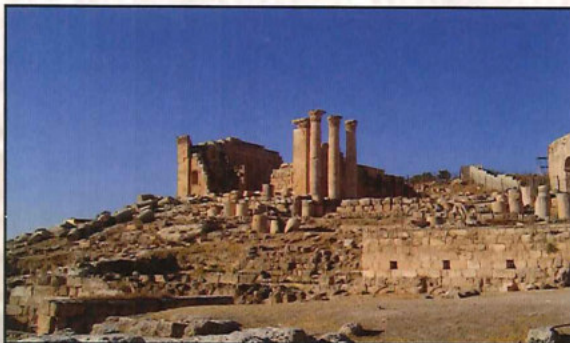
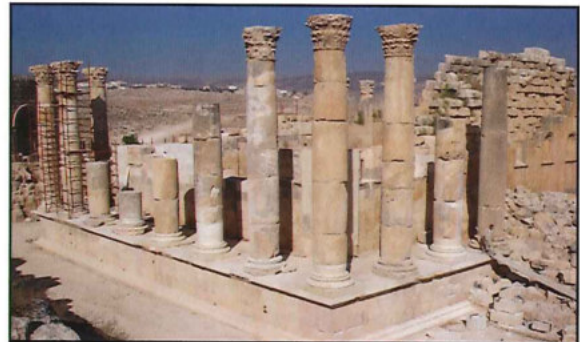
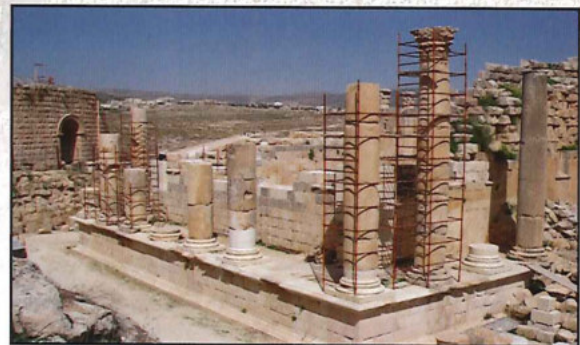
The crane used by the French team made the reconstruction of many elements of the peristyle possible. The restoration of columns has been completed in accordance with the project objectives. The architraves should be rebuilt in 2006 after being restored.

The eastern peristyle and the podium

The restoration of the eastern sector of the temple started this year. This commenced with the restoration of the podium by rebuilding over its entire length the first step of the monumental stair, which had completely disappeared. This allowed the junction between the lower terrace of the sanctuary and the upper temple to be re-established.

The reconstruction of the peristyle was begun after two new column bases were cut. These bases required four months work by two experienced stonemasons.

Lastly, the north-eastern angle of the peristyle will be completely restored as well as the beginning of the pediment's angle, if the restorations carried out in 1980 by Kalayan prove to be correct.





Sanctuary of Artemis

Project Name: Italian Mission at Jarash/Excavation and Restoration in the Sanctuary of Artemis

Duration: (6 weeks study campaign)

Number of workers: 9

Cost: JD 6,000,000

Sponsor: "Centro Ricerche Archeologiche e Scavi di Torino/Italy;

Director: Arch. Roberto Parapetti

Representative .Mr. Abdul Majid Mjelli and Mrs Shan Tsay.

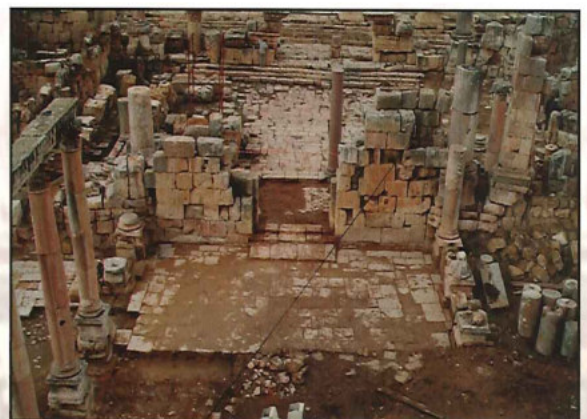
The ruins of the building spaces of the Sanctuary of Artemis east of the Main Colonnaded Street, the "East Propylaeum" and the "Trapezium Shaped Piazza" left by the 551AD earthquake were transformed into a Basilica preceded by a forecourt surrounded by porticoes, the so called Propylaeum Church. The area was previously partly investigated in the apses-presbyter area and in the forecourt north part (1929 and 1934 by Yale University-ASOR Jerusalem). In 1999, 2000 and 2002 the Italian Mission resumed research in the southern sector of the forecourt and narthex where, beside the discovery of annex rooms sealed under the earthquakes of 749AD, a new side chapel with a mosaic pavement was discovered adjacent to the church southern aisle. This year's campaign was dedicated to the excavation of the central nave and the south aisle of the church. There, because of the spoliation which probably occurred during and after the Umayyad period, only part (almost 25%), of the flagstone pavement was preserved. It became evident that in converting the Roman remains the level of the church was lowered by about 50cm. exposing the foundations of the still standing colonnades. The same operation was done in the forecourt. There the atrium level was lowered more than one meter. In deepening the investigation in the side chapel by taking advantage of a large gap in the mosaic flooring, a second mosaic pavement, decorated with a simple red grid on a white ground, was discovered below. This latter belongs to the 2nd century decoration of a series of rooms behind the ambulatory of the colonnades flanking the stretch of the sanctuary's Via Sacra from the East Propylaeum to the Trapezium Shaped Piazza. The previously excavated northern part of the forecourt was cleared in order to survey the architectural layout of its two main building phases; under a good soil layer the north deaconry was re-discovered to be only slightly damaged; it is a circular room paved with an excellent colorful geometric pattern mosaic, one of the most beautiful in Jarash. The mosaic has been covered again, in preparation for final restorations and presentation to the public.



The Circular room paved with geometric pattern



The Second mosaic pavement



General View



Made from cut stones, the staircase gave entry to the mosque from the main North-South Street of Jarash, still a major thoroughfare in the Umayyad period. South of the staircase, a line of shops built along the street and contemporary with the mosque were further explored.

Excavation within the mosque concentrated on the western half of the *qibla* (prayer) hall, in front of the western-most *mihrab*. An unexpected discovery was the clear presence of Ayyubid or early Mamluk pottery at floor level, suggesting either the continued use of the mosque into the twelfth to thirteenth century AD, or its restoration about that time. A clear and full plan of the mosque can now be presented, which measures 45 by 37.75 meters and conforms to the standard 'Arab-courtyard' style of the early Islamic period.



The entrance (fuel stoke hole) into the furnace

West of the mosque, an area with a small street and adjoining buildings was investigated. The structures, which lie at a different orientation than the mosque, appear to be service buildings, with evidence of the preparation or manufacture of goods.

The 2005 season also continued the investigation of the late Roman bathhouse that existed in this area before the construction of the mosque. Two important features of the bathhouse were uncovered: the large pool with benches for sitting in cooling waters and, at the other (southern) end of the mosque, the furnace, intended for heating the water and the bathing rooms by way of under-floor hypocausts excavated in 2002 and 2004.

Further detailed planning of the paved streets to the north and east of the mosque was undertaken in the 2005 season. This part of the project has reached an advanced stage, and will be continued in future seasons until the whole area from, and including, the south *tetrakonia* plaza to the west and south are fully recorded.

Recommendations

A final season of excavation and recording is required before the mosque can be restored to establish a positive visual record of early Islamic settlement at Jarash.



Jarash Islamic Monuments

Project name: The Danish-Jordanian Islamic Jarash Project

Duration: July 30 – August 25, 2005

Number of workers: 30

Cost: JD 10,200

Sponsor: Carsten Niebuhr Institute of Near Eastern Studies,
University of Copenhagen/ Denmark

Director: Professor Alan Walmsley

Representative: Mr. Musa Melkawi

Jarash, on the Wādi Jarash, a tributary of the Wādi az-Zarqā', is one of Jordan's major archaeological and tourist sites. Founded in the Hellenistic period on the site of an earlier Iron Age settlement, the city was transformed in the Roman period by the construction of a grid of paved and colonnaded streets and major monuments. Included among these are huge temples, theatres, and open public spaces, especially the famous 'Oval Piazza' in front of the Zeus temple. In the Byzantine period, Jarash was endowed with many churches, often decorated with brilliantly colored mosaics. At the time of the Islamic Conquest of Bilād ash-Shām (635–640 AD) Jarash surrendered without destruction to the city. Social and economic life continued, and a large mosque was built in the center of the city, as discovered last year by our project.

Tourism potential

Jarash is a well known tourist site, but not for the Islamic periods. The Islamic Jarash Project plans to change that by systematic excavation and restoration of a number of major Islamic monuments, including an early mosque, located around the south crossroads of the Roman-period city.

Area explored this season

The area explored this season was located to the southwest of the south *tetrapylon* plaza, between the *Macellum* (markets) and the south *decumanus*. Two long stone-built walls and a corner tower were partially exposed here by the Yale/British School/American School mission in the late 1920s. Excavations in 2002 discovered that this building was an early Islamic mosque.

Most significant monuments in the area

The main (Friday or Congregational) mosque dating to the Umayyad period (41-132 H/661-750 AD), most probably constructed under *Hisham ibn Abd al-Malik* (r. 105-125 H/724-43 AD) as the centre-piece of an urban renewal program at Jarash, a provincial capital of the *Jund al-Urdunn*.

Results

In 2005, more major features belonging to the Umayyad mosque were exposed. Most significant was the discovery of a monumental, semi-circular staircase providing entry into the mosque mid-way in the east wall.



Close view of the staircase



The west mihrāb



unfortunately destroyed by the Iron Age I settlers. The other contains two column bases and a little plastered bench. There are two floor levels (a thick chalk-plaster and deeper stone pavement).

A street runs parallel to the east side of the casemate wall. In AM/ AN 116/117, AM 117 and AL 117, we exposed at least four chanel, which are covered by large stone slabs. They collected water from north, east and south, draining it into the casemate AM 116. It can be assumed that the 3m deep shaft beyond the city wall in square AM 115 (excavated in 2004) was part of this construction. At the foundation level of the Early Bronze Age glacis the shaft deviates from the vertical at an angle of about 30°.

Just as the architecture of the Late Bronze Age is very prestigious, so are the finds. Various bronze objects have been found like remains of figurines, knives, needles and large fragments of bowls as well as imported Mycenaean and Cypriote pottery.

Stratum 5 is represented by a 3m high glacis running along the western hill. This glacis and the basis of the city wall can be dated to the Early Bronze Age. In 2005 we did not do any work in this area.

The aerial survey

Surveying and photogrammetric mapping have made possible new research methods for archaeology by combining modern equipment with digital technologies.

These are aerial photogrammetry for the production of site maps, topographical maps and photogrammetry used in the documentation of archaeological features, respectively.

Similarly, the excavation squares on Tall Zar'a were documented with the help of modern technological equipment. On a daily basis, nearly perpendicular photos were taken from c.4m above the squares. First, the distortion of the objective was corrected. Then the digital photographs were rectified via control points (here the corner points of the squares). In this way, both the progress of the excavation could be documented and site sketches produced with great accuracy.

Finds

In 2005 we found many well-preserved valuable finds in domestic contexts made of metal (iron and bronze; stone and ceramic). Only some are mentioned here: In Iron Age contexts we found a stamp seal with a bull and a masculine god standing on its back. A sitting bronze, gold-covered god also dates to this period. There was a very beautiful bi-chrome painted crater with motives of a bull, human figures, snakes and a lion, also bearing a geometrical design, was found in the Iron Age I deposits. A wonderful head of a figurine (fragment) made of stone (and ceramics) dates to the Late Bronze Age.

Further work

In the next season, in summer 2005, we will only work on the pottery found in 2001-2005. In 2006 we will expand the excavation territory to the south and reach the Late Bronze Age stratum in all squares. Afterwards, from 2006 on, we will excavate the strata of the earlier times of the tell.

Problems

As in 2004, some unwelcome visitors from Irbid and Kufur Asad looked at our excavation on several occasions. Unfortunately, in 2005 they destroyed some archaeological contexts in the afternoon or during the weekends. They pulled out ceramics from the balks (including vessels for reconstruction), stone vessels - and they looked for an Arabic tomb near our excavation (these are tombs of the Bedouins living near the tell)! We would therefore like to ask the Department of Antiquities for a guard of the Tall Zar'a!



Tall Zar'a

Project Name: Gadara Region Project/ Excavations at Tall Zar'a

Duration: March 4- April 5, 2005

Number of Workers: -

Cost: JD 4530

Sponsor:

Director: Dieter Vieweger

Representative: Taha Batayne

During the third excavation season of our archaeological project "Region of Gadara/Umm Qays - Tall Zar'a" as in previous years we focused our work in spring 2005 on area I in the northwest of the Tall Zar'a (32°35'N, 35°40'E). We are looking for the stratigraphy of the habitation area and for one of the two city gates of the town in this location. We are searching for a reference stratigraphy for the Gadara/Umm Qays region, representing remains from a long succession of archaeological periods (Early Bronze Age - Ottoman period). Up to now we have reached the Late Bronze Age, excavating to a depth of 3.90m. We expect (according to our geophysical prospection) a depth of cultural layers of more than 8m. In 2005 we expanded area I by 25 squares of 5x5m- a total of 625 sqm.

Further work was done for aerial photogrammetry in the Wadi al- 'Arab (including photogrammetry research work with a helium-filled balloon).

During this season, four of the five already explored strata were exposed further; and labeled 1 to 5 from top to bottom. In the uppermost stratum (1), the remains of three large houses of the Roman-Byzantine Era were uncovered. One house with six and another with four rooms were explored in 2003 and 2004. They are oriented nearly exactly north-south. The walls are built with undressed and some dressed stones. To the west the houses were placed on deep foundations. Toward the western part of the slope, the buildings are eroded near the edge of the slope's steep incline.

A pebble-paved street encircles the tell from the northwest. We continued to expose the street in the balk AM / AN 119. In the squares AK/ AL 117 we explored a courtyard of one of the houses, and in AK 117 and AI 116 a fourth Roman Byzantine house.

The two subsequent strata (2 and 3) can be dated to the Iron Age. According to C14 dating, these strata belong to the 12/11th and 10/9th-Century BC.

In 11 squares (AM-AP 118/119, AL 118, AK 117 and AI 116) we exposed new parts of the Iron Age II city on the tell. There we expect to reconstruct three houses (AP 118f; AN/ AO 118/119; AL/AM 118/119) and maybe a postern in AK 116. A zigzag wall of this city had already been exposed in 2003 and 2004.

The architectural remains of stratum 3 have now been explored in 14 squares. A coherent building structure could be established. In the south of area I we explored a lot of well-preserved walls and a stone pavement with a circular stone of about 1 m diameter (AH 115). This 12cm thick circular hewn slab was removed, and a cistern was explored to a depth of 2.6m. The originally depth of the cistern is not yet known.

The city entrance of the Iron Age I is expected in the north of AH 115, not far from the Iron Age II gate(?).

The remains of the Late Bronze Age city wall were reused during Iron Age I in nearly all squares excavated so far.

In the slope terrain of the excavation area (AI-AO 115-117) the layers of the Late Bronze Age (stratum 4) were reached. An imposing casemate wall with a big tower, were exposed further. Also, a second large chamber of the gate-tower and the gate itself were found. The casemate city wall with five rooms - which protected the western slope in this period - was excavated. In the city gate three stone slabs of a staircase were explored. The entrance to the gate was at least 2.75m wide. In the northern tower we explored two rooms, one of them



Pella (Ṭabaqat Faḥl)

Project name: Sydney University Excavations at Pella

Duration: January 9-February 17, 2005

Number of workers: ?

Cost: JD 11,900

Sponsor: University of Sydney/ Australia

Director: Dr. Stephen J. Bourke

Representative: Ahmad Momani and Husein Jarrah

The twenty-third season of Sydney University excavations at Pella (Ṭabaqat Faḥl) had two main aims; the further exploration of the Bronze Age Fortress Temple, discovered in 1997 and intensively investigated since that time, and the further exploration of a large Iron Age civic building, discovered in 1997, but only intensively investigated since 2003. Five trenches were opened to continue the temple excavations, while an additional five were opened to explore the Iron Age building.

Work in and about the temple in 2005 continued the exploration of the earlier Middle Bronze Age architectural history of the temple. Trenches along the southern face of the temple explored a very large stone buttress feature (ca. 1600 BC), built into the southern face of the temple adjacent to the southern tower, probably as a sub-surface support. Trenches within the temple proper (ca. 1800 BC) explored at least three phases of early mud brick walls (probably part of earlier temples) which lay below the floors of the massive stone temple uncovered in 1999/2001. A trench against the western wall of the temple uncovered massive stone footings to the MBA temple, and began the exploration of an early Late Bronze Age (ca. 1500 BC) structure built on top of these stone footings.

Work on the Iron Age (ca. 850 BC) structure uncovered another twelve rooms of what is a very large structure. Some rooms were built of stone and others of beautifully formed mud brick walls. Excavations this year encountered a fiery destruction across the complex, dating to some phase within the Iron Age II. Numerous crushed pottery vessels, burnt wooden beams and collapsed walls were detected, emphasizing the sudden and severe nature of the event.

Noteworthy finds in 2005 include several pottery chalices, a fine stone bowl, numerous coins and a variety of small wooden implements.

More than three quarters of the stone temple has now been excavated. It is one of the finest Bronze Age monuments ever uncovered in Jordan. The adjacent Iron Age structure may be of similar importance, but rather less than a third of it has been uncovered to date. Both structures merit further seasons of excavation, which are planned to continue in future years.



'Uyūn al-Ḥammām/ Wādī Ziqlāb

Project Name: Wādī Ziqlāb Project (Excavations at the geometric Kebaran Encampment of Uyūn al-Ḥammām)

Duration: June 18-July 28, 2005

Number of Workers: 15 (Canadian and Jordanian)

Cost: \$10 000 (CAD)

Sponsor: University of Toronto, SSHRC /Canada

Director: Dr. Lisa Maher

Representative: Nedal Hindawi

Excavations were conducted at the Geometric Kebaran encampment of 'Uyūn al-Ḥammām, located in al-Kūra District outside of the village of Dayr Abu Sa'id. The Wādī Ziqlāb Project is an ongoing University of Toronto project focussed on researching both the transition from hunting and gathering groups to farming communities and the interactions between farmers and pastoralists in northern Jordan. In 2005 researches focussed on excavations at a Geometric Kebaran campsite that is extremely rich in flint and basalt tools, animal bones and, as we discovered this year, human remains; making it a unique and important Epipalaeolithic site in Jordan. 'Uyūn al-Ḥammām exhibits many characteristics not found at many contemporary sites in the Levant. In particular, the presence of several human burials that probably date to the Geometric Kebaran period is a rare and important contribution to our understanding of Epipalaeolithic mortuary practices. Previous excavations have provided a glimpse of the types of activities that took place on-site, including stone tool manufacture, processing plant foods, and butchering and cooking wild game. Our analysis of the types of stone tools found at the site show that the inhabitants were focussed on producing very uniform and delicate trapeze/rectangles that were hafted together into larger tools for hunting animals like gazelle, ibex, deer, and wild cattle. Radiocarbon dating and tool typology have demonstrated that the site was occupied 16000-13000 years BP. Based on its large size and the high densities of flint tools and animal bone, it appears the site was occupied repeatedly over several generations as a favourite locale for the hunting of wild game and collecting wild cereals and grains. Perhaps the site served as an annual meeting place for several unrelated families to conduct ceremonies and exchange trade goods, such as shell from the Mediterranean Sea. Excavations this year focussed on several areas near the centre of the site. We excavated a small circular rock feature that contained a reburial of an adult male, probably dating to Late Neolithic. No grave goods were found within this feature and assigning an age to this burial must await a detailed analysis of the bones. Below the bundle burial, the rock feature continued for another 1m to reveal a well-constructed stone-lined storage pit. In addition, we also discovered the remains of six other human burials, whose ages remain to be determined, but may be Geometric Kebaran based on association with diagnostic flint tools, suggesting the importance of the site as a burial ground. Some of these burials represent primary interment, while others are secondary burials of more than one individual. Trapeze/rectangles, end-scrapers, basalt pestles, red ochre, and partial animal skeletons were found associated with several of the skeletons. Our preliminary analysis of the stone tools confirms the presence of only one particular cultural-chronological group (Geometric Kebaran), and that the tools they produced are similar to those found at many other contemporary sites in the region. Analysis of the lithics, fauna, and radiometric dating of the human remains will be the focus of our continuing work at this significant site.



Burial 3: The primary interment of an adult, probably male

The DoA is proud to support the pilot projects covered in this magazine, and regrets not covering the below projects which it also heartily supports- due to the absence of their related press releases. Our warmest thanks go to all the dedicated project directors who provided us with their press releases which, in turn, made this publication possible.

Abu aş-Şuwwān

Ḥajj Forts

Ḥujayrāt al-Ghuzlān

Jarash Cathédral

Khirbat Al-Batrāwi

Petra Medievale

Tall al-Kafrayn

Umm al-Biyāra/ Mughur an-Naşāra

Umm Qays

Umm ar-Raşaş

Uşaykhim

Wādī ar-Rayyān

Wādī ash-Shallāla/ Zayraqūn



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System of Transliteration from Arabic

Consonents

ء	' (except where initial)	ظ	ḍ
ب	b	ط	t
ت	t	ظ	dh
ث	th	ع	'
ج	j	غ	gh
ح	ḥ	ف	f
خ	kh	ق	q
د	d	ك	k
ذ	dh	ل	l
ر	r	م	m
ز	z	ن	n
س	s	ه	h
ش	sh	و	w
ص	ṣ	ي	y
ة	a or at	ه	a or ah

Long Vowels

اى	ā
و	ū
ي	ī

Short Vowels

ـَ	a
ـُ	u
ـِ	i

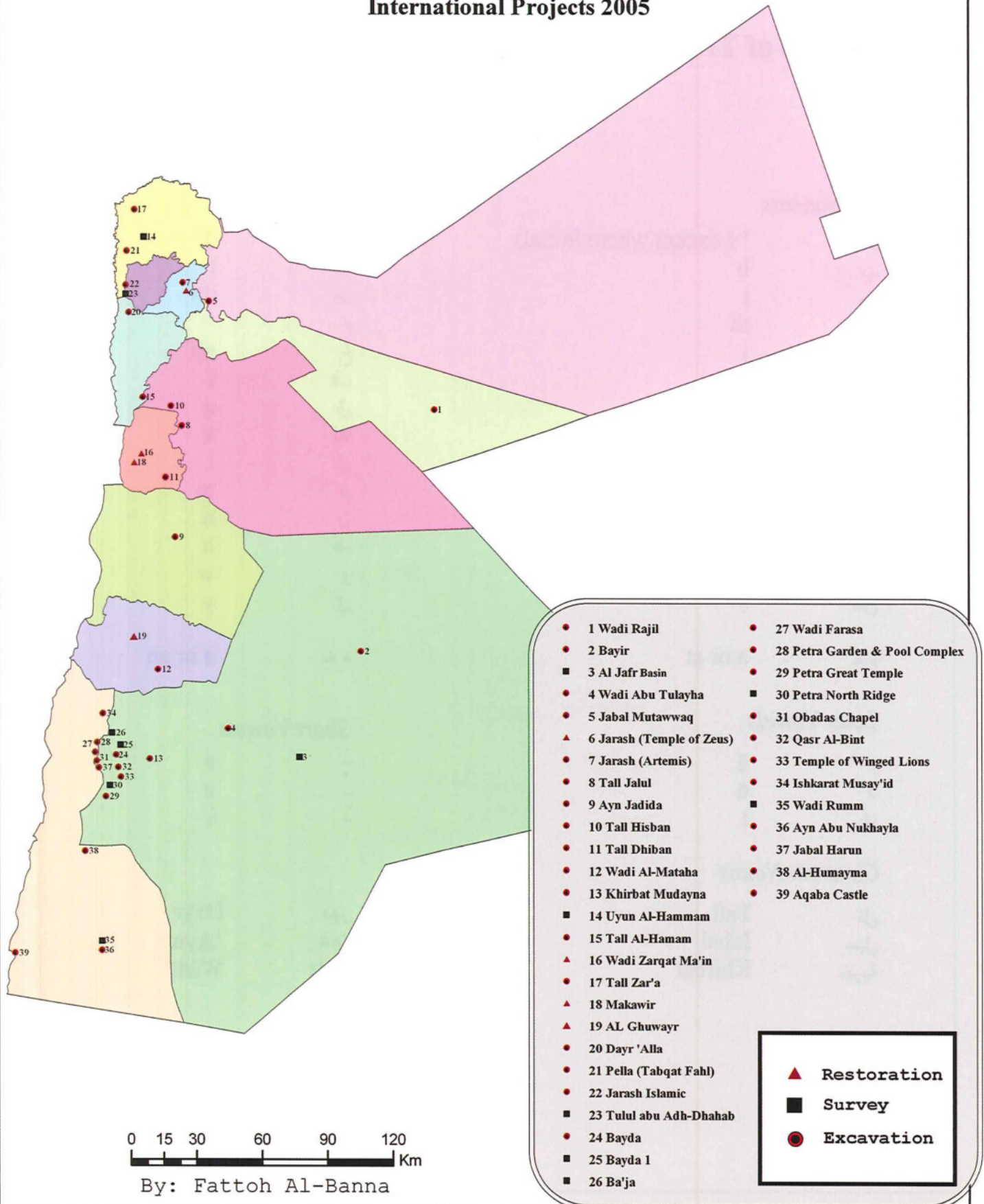
Common Nouns

تل	Tall	دير	Dayr
جبل	Jabal	عين	'Ayn
خربة	Khirbat	وادي	Wādi



Department of Antiquities

International Projects 2005



Munjazāt

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The background of the cover is a complex collage. At the top left is a coat of arms with a shield and a crown, with some illegible text above it. Below it is a dark, textured area with a crescent moon and other symbols. To the right is a vertical strip of a rug with a repeating geometric pattern. Further right is a vertical strip of a cityscape with various buildings. The overall color palette is muted, with browns, greys, and earthy tones.

International Projects

2005