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**תיקיית פיקוח מדעי ישראל**  
פ/בית אלפא, ביה"כ/א

**תיקייה מדעית מנדטורית (Mandate Record Files)**

תיק מס' 31-30, Beit Jibrin II  
תיק מס' 35, Bethlehem Church of the Nativity (Atrium excluded)  
תיק מס' 36, Bethlehem Church of the Nativity (paintings)  
תיק מס' 37, Bethlehem Church of the Nativity (Atrium)  
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**תמונות של פסיפסים שצילמתי בעצמי נרשם בצמידות אליהן רק תאריך הצילום, להלן רשימת**

**האתרים והרשויות:**

**אתרים הפתוחים לקהל שהצילום בהם מותר באדיבות "רשות העתיקות"**

אל-מכר, כנסייה, בחצר בית-המשפט העליון, ירושלים.  
 בית ליה, כנסייה, באתרו.  
 בית-לחם הגלילית, כנסייה, במסדרון נוסעים נכנסים, נתב"ג.  
 דומינוס פלוויט, האורטוריום, הר הזיתים, ירושלים, באתרו.  
 חנות, כנסייה, באתרו.  
 מדרס, כנסייה, באתרו, באדיבות החופרים אמיר גנור ואלון קליין.  
 מלחמה, מבנה, במחסן מוזיאון רוקפלר.  
 מעוז חיים, בבית כנסת, אתרו, באדיבות קיבוץ מעוז חיים.  
 מעון (נירים), בית כנסת, באתרו.  
 עוספיה, בית כנסת, במכון הארכיאולוגי של האוניברסיטה העברית בירושלים, הר הצופים.  
 קיסריה, קלוקריה, מבנה, במסדרון נוסעים נכנסים, נתב"ג.  
 קיסריה, פסיפס הציפורים, באתרו.



**אתרים שהצילום בהם מותר באדיבות "רשות הטבע והגנים"**

בית אלפא, בית כנסת, בגן לאומי בית אלפא.  
 בית סילה, כנסייה, במוזיאון השומרונים הטוב.  
 בית שאן, תל איצטבא, מנזר הגבירה מרים, בגן לאומי בית שאן.  
 חמת טבריה, בית כנסת, בגן לאומי חמת טבריה.  
 יריחו, בית כנסת, במוזיאון השומרונים הטוב.  
 כורסי, כנסייה, בגן לאומי כורסי.  
 ממשית, כנסייה, בגן לאומי ממשית.  
 מצדה, קפלה, בגן לאומי מצדה.  
 סמרה, בית כנסת שומרונים, במוזיאון השומרונים הטוב.  
 עין גדי, בית כנסת, בגן לאומי עין גדי.  
 ציפורי, בית דיוניסוס, בגן לאומי ציפורי.  
 ציפורי, בית חג הנילוס, בגן לאומי ציפורי.  
 ציפורי, בית כנסת, בגן לאומי ציפורי.  
 קיסריה, בית המרחץ, בגן לאומי קיסריה.  
 קיסריה, מכלול מבנים מערבית לקמרון, בגן לאומי קיסריה.  
 קיסריה, פסיפס היעלים, בגן לאומי קיסריה.

**מוזיאונים וגנים שהתירו באדיבותם צילום ושימוש בתמונות**

בית שאן בית כנסת ליאונטיס, מוזיאון הכט, אוניברסיטת חיפה.  
 בית שאן בית כנסת שומרונים, מוזיאון ישראל.  
 בית שאן, בית ליאונטיס, מבנה ציבור, מוזיאון ישראל.  
 בית שאן, טיכה, מוזיאון ישראל.  
 חניתה, מוזיאון חניתה.

ירושלים, כנסיית העלייה הרוסית, כנסיית יוחנן המטביל, באדיבות ראשת המנזר ובעזרתה של  
 לוביב, צליינית מאוקראינה.

כיסופים, כנסייה, מוזיאון ישראל (576-578) Mosaic floor, Church at Kissufim

(Photos © The Israel Museum, Jerusalem).

שלומי, חווה, מוזיאון ישראל.

גן בוטני גבעת רם האוניברסיטה העברית בירושלים, באדיבות מנהל הגן הבוטני, ד"ר אורי פרגמן-ספיר.

גן בוטני הר הצופים האוניברסיטה העברית בירושלים, באדיבות מנהל הגן הבוטני, מני נוימן. נהריה, צילום הפסיפס: דוד מוסרי, עיבוד תמונה: אלעד הרשקוביץ - פוטו לזר, נהריה, בשיתוף רשות העתיקות.

**מוזיאונים מחוץ לישראל המתירים באדיבותם צילומים בתחומם ושימוש בתמונות-**

Antiquarium of Boscoreale, Italy.

Argos Archaeological Museum, Peloponnese, Greece.

Hatay (Antakya) Archeological Museum, Turkey.

Istanbul Archaeological Museums, Turkey.

Naples National Archaeological Museum, Italy.

Vatican Museum, Italy.



**Prevalence of mosaics in various areas**

Most of the mosaics were created in the Judean area (34%), and in the Galilee (33%), while the others were created in Samaria, in the Carmel, in the Jordan Valley (19%) and in the Negev (14%).

**Prevalence of the mosaics from the various sectors**

Among the agricultural mosaics, more than 75% were created in structures located in the Christian sector, 15% in the Jewish sector, 6% in the Roman sector, and only 3% were found in Samaritan synagogues. The Christian sector reveals a strong propensity towards agricultural mosaics, and it generated both the highest absolute number and the highest relative number among them. These data correspond to what is known about the imperial initiative and urging towards building churches, as well as its economic support of the Christian religious establishment, which was building them; it also corresponds to what we know of the repression of the Jewish sector and the legislating of rules that forbid building new synagogues, in the fifth century.

## **IV**

### **Originality of the mosaic**

The uniform and dogmatic compositions of the mosaics in the Land of Israel are misleading. Most of the mosaics carpets use a similar division of the floor into sections and panels, and use the same geometrical and vegetal patterns in order to create frames and medallions. In total opposition to this, the mosaics reveal an artistic freedom by creating original patterns **within** these frames and medallions. Although the results are similar in the subjects and composition of the carpet, they present unique and original examples in each mosaic. The creators also avoided "plagiarizing", something which just like today was probably unacceptable at the time, either.

### **Blurring signs of copying and merging models**

To this day, neither two completely identical mosaics, nor two identical mosaics whose elements inhabit the medallions, have been found. Moreover, it is quasi impossible to find the exact design of a single motif that is repeated at different sites. One can say that the creators of the mosaics made a point of blurring signs of copying, or of realizing a full work or parts of it in a precise way. Even in cases where one can detect a great closeness in style among various mosaics, one can still see that the creators made a point of changing a number of details in the new work, whether they themselves did both pieces, or whether the second one was realized under the inspiration of mosaics done by other people.

### **Infrequency of copied models**

There are only a few models in the Land of Israel mosaics that were represented as perfect copies of a type of crop. The cherry represents a copy without any local adaptation, and it rarely appears in Israel. It appears in local mosaics as a copied model that came from outside Israel. Since there were no local cherry trees, no local adaptation was carried out in the Land of Israel, and thus no unique pattern of the cherry was created.

### **Quality of the mosaic and variety of patterns**

In this study, the quality of the mosaic is determined, based on the size of the tesserae, measured by the number of tiles per square decimeter. In order to create a normal distribution that will reflect the quality of the mosaics in Israel, a quality ladder was determined, ranging from 1 (low) to 3 (high), where 1 refers to up to 100 stones per square decimeter; 2 – 100-130 stones per square decimeter; and 3 – above 130 stones per square decimeter. The higher the quality of the mosaic, the more details it comprises – produce, tools, vessels, agricultural activity, etc.

### B.3. Chapters on the tools

This section comprises a review of the tools that were used for the treatment of the crops and for harvesting –a billhook, a scythe, two pronged drag hoe, a unique forked tool, a kitchen knife, and a hatchet. In 60% of the appearances of work tools, they are linked to seasons, and in 30%, they are linked to the presentation of a pastoral activity and routine harvesting, picking, and grape crushing. Most of the tools appear in mosaics located in the Galilee, while in the Negev there is not a single representation of any work tool.

### B.4. Chapters on the baskets

This section contains a review of the baskets that contain the agricultural output, for ornamental purposes, and to show how it was transported. 66% of all the baskets that appear in the mosaics in the Land of Israel are calathus baskets, which were the most common reed baskets at the time. Other types of baskets, which appear less often, are the double basket specially designed to be carried on the back of a beast, the corbis, the ball-shaped basket and the canistrum.

### B.5. Statistical analysis

This chapter comprises tables with all the data, graphs, and quantitative results presented in various cross-cuts. A comprehensive statistical analysis was conducted on the data that emerged from the mosaics, regarding the types of crop, agricultural work, tools, and material culture – in cross-cuts, according to the area in Israel, the sector, the dating of the mosaic, and its quality.

### B.6. Summaries and conclusions

#### **Importance of the mosaic as a reliable testimony of the past**

Modern research recognizes the reliability of the visual ornament as presented in the mosaic, and grants it testimonial importance which does not fall from that of literary documents from the same period. The range of detailed and clear descriptions which are expressed through the mosaics reflect the reality of life, culture, the economy, and religion, at the time. The precision of the realistic details is very impressive, and tells us about the link between the artists and village day-to-day rural life and their deep and close observation of the surrounding nature.

## B. RESEARCH

### B.1. Chapters on the crops

This section includes chapters describing the research on the 30 agricultural crops that appear at least once in the mosaics found in Israel, including the pear, stone pine, asparagus, peach, citron, grapevine, cereals and baked goods, cherry, cucurbits, olive, apricot, hawthorn, opium poppy, flowers, artichoke, pomegranate, plum, jujube, almond, sycamore, fig, date palm and apple. The grapevine represents an important economic branch both as food for consumption and for the preparation of wine, and it is also highly decorative. Therefore, its representation is particularly significant, and it appears in approximately 80% of all the mosaics, which also include various types of grapes, most of them round, some elongated, of various colors. Harm caused by animals to the yield of vineyards, trellising the grapevine, harvesting and handling the grapes, crushing the grapes, amphorae and transporting wine.

To describe the types of crops and tools that appear on the mosaics, there is a need for interdisciplinary research that includes studies conducted in various areas: horticulture, botany, archaeology, history and philology. In this research, the information obtained from these various areas was cross-related. The review includes the origin and history of these types of crops, of their cultivation and dissemination and of their appearance. It also includes the main references made to them in ancient literary sources – the Bible, rabbinical literature, as well as ancient Greek and Roman literature.

At the end of each chapter, there is a detailed list of the appearances of the element and a statistical analysis of its appearances.

### B.2. Agro-technological chapters

This section includes chapters that review and discuss the documentation on the agricultural activity that was meant to improve the output and increase its quantity. The agro-technology activities focus on the pruning of fruit trees and on grafting. They mainly appear in private or public structures, or in Christian public structures. These illustrations are part of a scene background, as representatives of a pastoral context within which the plot takes place. The representation of grafting points to the high quality of the mosaics.



## **ENGLISH ABSTRACT**

In this research, 134 mosaics were isolated from the hundreds of mosaics dating from the late Roman and Byzantine periods, which were uncovered in Israel until the end of 2013, and which present representations related to agriculture. These mosaics reveal 30 types of crops, eight tools, various agricultural types of labor, and a number of containers for the agricultural products, and their transport by man and beast. This range of illustrations can tell us a lot about the rich local agriculture, particularly in relation to the small size of the country, and about the local culinary preferences in relation to this broad agricultural output.

### **A. CORPUS**

The corpus contains a review of all the mosaics and their technical details, including photographs of the findings from the various agricultural branches, the crops, and the agricultural tools linked to this work. For the most part, there is no mention of the other motifs, despite the fact that they are often found very close to agricultural descriptions. Thus, when reviewing the seasons of the year, all were not reviewed if they do not present elements linked to agriculture or if they do not include signs of agricultural work or crops in the service of man and agriculture. The identification data and technical details of every mosaic were written down: if the date is in the CE, it appears with no addition, and if the date is before the CE, "BCE" appears after it. The site's area and exact location were written down, as were the place where the mosaic is located today; a short history of the research; the role of the structure; in accordance with the existing information, the size of the structure, of the original mosaic, the room and/or the size of the piece that remains; the colors of the stones were detailed, when it is possible to observe them directly, from pictures, or from the best information found in the literature; the size of the mosaic tesserae was measured by counting the number of tiles per square decimeter; and when the information is lacking, the relevant lines were not presented.

In the review of the corpus, almost no detailed description was provided of the agricultural produce, work and tools, as this description and the discussion appear in the relevant paragraphs, in the Research Volume. For example, a discussion on almond trees and their fruit appears in the chapter entitled "Almond", and not in relation to the appearance of the fruit in the various sites, such as the Samara synagogue. The same way, a discussion on the grafting of fruit trees appears in the chapter on grafting, and not in relation to the appearance of this action in the mosaics found at the various sites, such as the Kissufim Church, for example.



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**Representation of Crops and  
Agricultural Tools in Late Roman and  
Byzantine Mosaics of the Land of Israel**

**Research**

**Anat Avital**

The Martin (Szusz) Department of Land of Israel Studies and  
Archaeology

Ph.D. Thesis

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