

# Gioseffo Zarlino: Music treatises

Thesaurus musicarum italicarum (TMI)

Volume 1

Facsimile and transcription

edited by Frans Wiering

## Introduction to the TMI CD-ROM

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This document consists of:

1. General introduction
2. Installation instructions
3. A tour of the TMI

### 1. General introduction

We pleased to welcome you as a user of the *Thesaurus Musicarum Italicarum* (TMI). The TMI is an electronic corpus of Italian music treatises from the Renaissance and early Baroque. This first publication on CD-ROM contains writings on music by Gioseffo Zarlino (1517-1590), one of the most influential music theorists of all time. But in time many more Italian treatises will be added to the TMI.

The treatises on the CD-ROM are:

- *Le istituzioni harmoniche*. Venice, [Pietro da Fino], 1558. This is the first treatise Zarlino wrote, and immediately made his reputation. The copy reproduced here is at the Royal Library in The Hague, Netherlands (signature: 3193 C 6). It is notable for the many manuscript annotations in a 17th-century hand.
- *Istituzioni harmoniche*. Venice, Francesco de'Franceschi, 1589. The third, expanded, edition of the same work, and the last that appeared under Zarlino's supervision, as part 1 of the *Tutte le opere*.
- *Dimostrazioni harmoniche*. Venice, Francesco de'Franceschi, 1589. The first edition of this work appeared in 1571 by the same publisher. This is the second, revised edition, which was published as part 2 of the *Tutte le opere*.
- *Sopplimenti musicali*. Venice, Francesco de'Franceschi, 1588. The first edition of this work, part 3 of the *Tutte le opere*.

All three volumes of the *Tutte le opere* are reproduced after the copies at the Arts Library, Utrecht University (signature: Rariora Eq Zarlino 1-3).

This CD-ROM is especially designed for research purposes. Each source is presented both in facsimile and as a complete electronic transcription. The CD-ROM also contains some secondary information, notably a list of persons mentioned in the treatise and one of compositions mentioned. Panorama Viewer, the software package that comes with the TMI, offers the facility to create your own annotations anywhere in the transcription. Of course the TMI is also a valuable work of reference for anyone interested in Renaissance music and its theoretical background. We hope you will enjoy it. In any case, we would like to hear your opinion. We therefore ask you to complete the questionnaire that comes with the TMI after you have used the CD-ROM for some time.

In preparing this CD-ROM we have aimed at the highest level of accuracy in the transcription of the materials. Yet it should be regarded as an experimental publication. It is still incomplete, both in design and in data content. If you register as a user, you will be informed about future developments, while it gives us an impression of the size and composition of the TMI user group.

### ***Acknowledgements***

The development of this CD-ROM was made possible by a generous grant from the IWI Project Group of the SURF Foundation. The materials for the facsimile were provided by the Netherlands Royal Library, The Hague, and the Arts Library, Utrecht University. Contributions to this CD-ROM were made by Dorien van den Berg, Alexandra Buijs, drs. Jan Houwen, Miró van der Mey, drs. Karoline Sabbatino, drs. Henriette Straub, drs. Robert Tenback, and drs. Randy Tollefsen.

## **2. Installation instructions**

The TMI CD-ROM contains a setup program. You must run this program before you can use the CD-ROM. The TMI setup program is rather complicated. Here is how it works.

The TMI setup program performs the following sequence of tasks.

1. it installs the TMI software and data;
2. it installs Netscape Navigator 3.01;
3. it installs Panorama Viewer 2.0;
4. it installs fonts and connects the installed components.

During the installation you will be asked regularly to choose from a number of options. This document helps you to make the appropriate decisions.

The most important decision concerns the Internet browser, ***Netscape Navigator***. You must decide about installing it before running the setup program. TMI works best with the Netscape Navigator version that is on the CD-ROM (version 3.01). But you may already have installed this version, an earlier version, or the more recent ***Netscape Communicator***, on your computer.

If you have an earlier version, you will need to upgrade to the version on the CD-ROM. If you use Netscape Communicator, you may wish not to install Netscape Navigator. But we cannot guarantee that Panorama Viewer and Netscape Communicator work well together at all times.

If you already use version 3.01, the situation is more complicated. If you skip the Netscape installation, Panorama Viewer will not install correctly. The easy solutions are to remove your own copy of Netscape and reinstall it from the CD-ROM, or to install a second copy of Netscape Navigator. The hard one is to install Panorama Viewer manually.

In any case, if you decide **not** to install Netscape Navigator from the CD-ROM, you must **first** install Panorama Viewer with its own setup program (`\install\panorama\setup.exe` on the CD-ROM), **then** run the TMI setup program and skip the Netscape and Panorama installation. Only this sequence guarantees that the TMI setup will be performed successfully.

### ***Starting the Setup program***

1. Insert the CD-ROM.
2. from the Start menu, choose **Run...** and type in: **x:\SETUP.EXE**, where x is the letter of your CD-ROM drive. In figure 1, the drive letter is **E**.
3. Click on the OK button (or press the **Enter** key). The Setup program now starts.

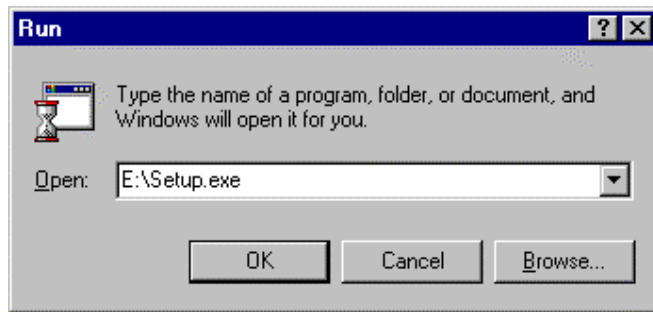


Figure 1. Starting the Setup program from the **Run...** menu

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### *First step: TMI files are installed*

The Setup program will first perform some preliminary tasks. Then the following windows appear:

1. **“Welcome”**. Read it and click **“Next”**.
2. **“Choose Destination Location”**. A default location for the TMI files is specified. Do not change this location unless you have a reason to do so. Then click **“Next”**.
3. **“Setup Type Selection”**. Hard disk installation is the preferred option (20 Mb of data): it is faster and the files can be updated. Choose **CD-ROM** for minimal hard disk use (11.5 Mb). Make your choice and click **“Next”**.
4. **“Select Program Folder”**. A default location for the TMI folder is specified in the Start menu. Do not change this location unless you have a reason to do so. Click **“Next”**. The program will then copy a number of files from the CD-ROM to your hard disk.
5. **“TMI Setup”**. This window informs you that certain programs will be installed. Even if you do not wish to install these (see above), choose **“Next”**.

### *Second step: Netscape Installation*

You need Netscape in order to consult the TMI, but you do **not** need an Internet connection. The following windows will appear:

1. **“Netscape Navigator Installation”**. The standard answer is **“Yes”**. If you do not wish to install this program, click **“No”**. Remember that this requires previous installation of Panorama Viewer! If you selected **“Yes”**, some files will be copied to your hard disk.
2. **“Welcome”**. Read it and click **“Next”**.
3. **“Choose Destination Location”**. A default location for the Netscape files is specified. Usually, there is no reason to change it. However, if you have already a copy of Netscape Navigator version 3 and wish to keep it, you **must** specify a different location. Click **“Browse”** and change the location, for example by changing the last item, “navigator”, to “navigator3”. Then click **“Next”**. The program will be installed now.
4. **“Question”**. You may now connect to Netscape’s WWW site. However, this may take a lot of time and you need an Internet connection for this. The safe answer is **“No”**.
5. **“Question”**. If you are interested in the ReadMe file, click **“Yes”**, otherwise **“No”**.
6. **“Information”**. Click **“Ok”**.

Netscape Installation is now complete.

### *Third step: Panorama Viewer installation*

Now the Panorama Viewer installation begins. Panorama Viewer is a “plugin” for Netscape, not an independent program (that is why you need Netscape). Panorama Viewer allows you to view SGML files on the Internet (provided you have an Internet connection), or on your own computer (where the TMI files are).

The following windows appear successively:

1. **“Welcome to the Panorama Viewer Setup”**. Read the text in the window first. The standard choice is **“Next”**. However, if you have installed Panorama Viewer previously, click **“Cancel”** and then **“Exit Setup”**. Remember that you **must** have installed Netscape in the previous step in order to run Panorama Viewer Setup successfully.
2. **“Software License Agreement”**. Read this and click **“Yes”**.
3. **“Viewer Location”**. A default location is specified. Do not change this location unless you have a reason to do so. Click **“Next”**.
4. **“Support File Location”**. A default location is specified. Do not change this location unless you have a reason to do so. Click **“Next”**.
5. **“Select Program Folder”**. A default program folder for the Start menu is specified. Do not change this unless you have a reason to do so. Click **“Next”**.
6. **“Start Copying Files”**. Click **“Next”**. The program will be installed now.
7. **“Setup Complete”**. Click **“Finish”**.
8. **“Information”**. Click **“OK”**.

Panorama Viewer Setup is now complete.

### *Finishing the setup*

A number of files will now be copied automatically. This may take a couple of minutes. At the end a window appears, named **“Setup Complete”**. Click **“Finish”**.

### *Netscape configuration*

If you installed Netscape during the TMI setup, it will be configured as follows:

1. The home page is the (local) TMI home page. You can change this to your preferred home page elsewhere. For this, choose **“Options”** from Netscape’s main menu, then **“General Preferences”**, then **“Appearance”**. The default home page can be specified in this window.
2. The bookmark file is empty. If you already have a bookmark file on your system, copy it to the Netscape directory.
3. The Toolbar, Location and Directory buttons are invisible. If you wish to see these, choose **“Options”** from Netscape’s main menu, and tick the desired items.

### *Starting the TMI*

There will now be a TMI icon on the Windows desktop. Click it to start the TMI. You may also start the TMI from the Windows 95 Start menu.

### *Uninstalling the TMI*

TMI can be completely uninstalled in three simple steps:

1. From the Start menu, choose **“Settings”** and then **“Control panel”**.
2. Select the **“Add/Remove Software”** icon.
3. Select TMI from the list of installed items, and click on **“Add/Remove”**. Repeat this for Netscape and Panorama Viewer.

### 3. A tour of the TMI

#### *Basics*

To start the TMI, first make sure that the CD-ROM is inserted. Then click the TMI icon on your desktop. The opening screen will then appear. Clicking the right mouse button in the document window will bring up Panorama Viewer's popup menu. Both are shown in figure 2.

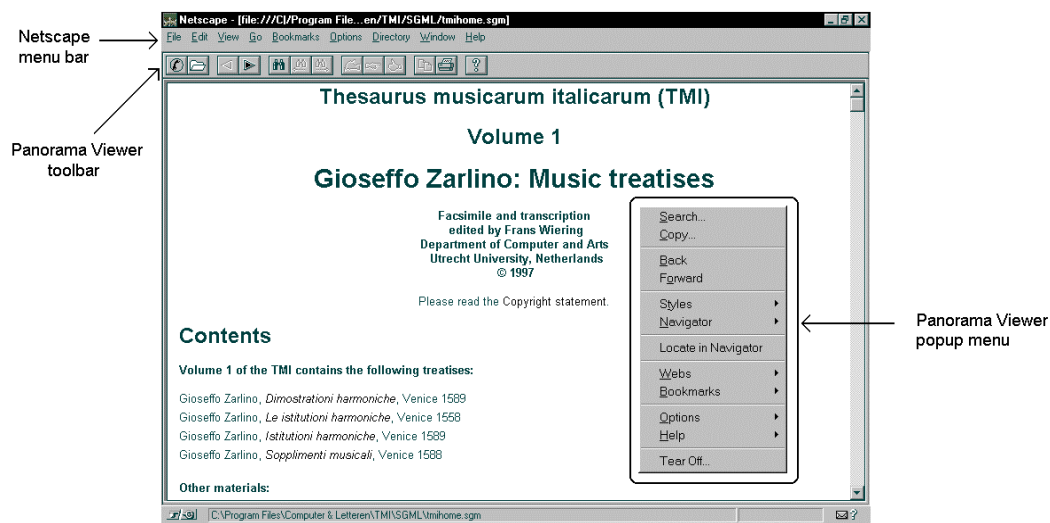


Figure 2. Panorama Viewer window with the TMI opening screen and Panorama Viewer's popup menu.

The Netscape menu bar is located at the top of the screen just below the title bar. Generally, you will not need the Netscape menu while using the TMI. Immediately below it is the Panorama Viewer toolbar. Figure 3 shows the functions of all buttons.



1. Open a URL (location on the World Wide Web)
2. Open file (an SGML document on your computer)
3. Backtrack to previous document in document history
4. Forward to next document in document history (undoes the previous option)
5. Search
6. Go to next undiscovered hit
7. Go to previous undiscovered hit
8. Make annotation
9. Begin link
10. Connect link
11. Copy selection

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12. Print
  13. Panorama Viewer Manual

Figure 3. Panorama Viewer toolbar functions

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Most items from the Panorama Viewer toolbar are described below, but see also section 2.3 of the Panorama Viewer Manual (button 13) for more detailed descriptions. The commands in the popup menu are described in section 2.4.

### *Navigation*

You can reach all TMI materials from the opening screen. For this tour, select *Le istituzioni harmoniche* (1558) by clicking the second title — in blue type — in the table of contents. Note that the mouse pointer changes into a hand on any link to another document. Depending upon the speed of your computer, loading the document may take some time. After loading this document, the Panorama Viewer window will look as in figure 4.

The window is divided into two parts. The document itself appears on the right, while a **navigator** is shown on the left. In this case, the navigator is the table of contents. Clicking on a navigator item will immediately bring up the corresponding section in the document window.

The plus sign before some navigator items indicates that lower level items are hidden. Clicking on the plus sign will display these. If you do this for the item “LA TERZA PARTE”, a list of the 80 chapters of the third part of the *Istituzioni* is shown. Now scroll down the navigator window to locate the item for chapter 65. Click on the chapter title (not on the symbol to the left of it) to display this chapter in the document window.

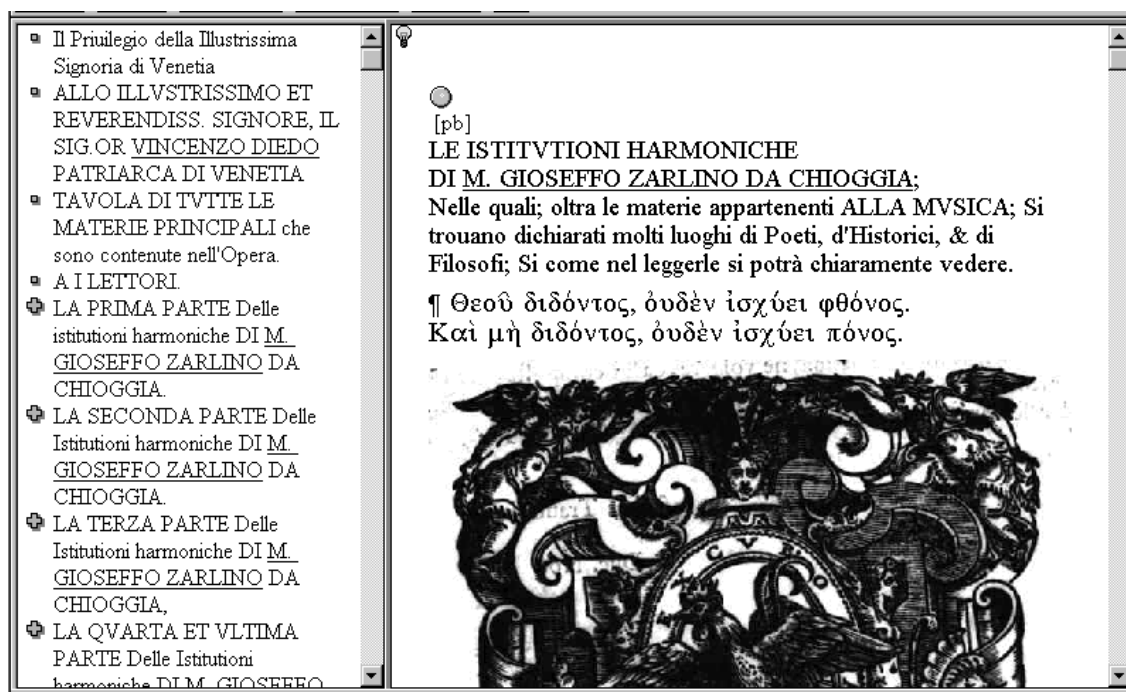



Figure 4. Panorama Viewer window, with the *Istituzioni* loaded.


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### *A music example*

In the document window, scroll down two or three screens until a music example appears. You may want to move the border between the text and the navigator a little to the left in order to restore invisible staff lines. The following icon is shown above the score: . If you click on this icon, Windows 95's MIDI player is activated and begins to play the music (provided that your computer possesses a multimedia card).

If you would like to inspect the score (or any other illustration) more closely, you must “tear it off”. To do so, click the right mouse button on the image. The popup menu will then appear, with the “**Tear off**” option at the bottom. Select it, and a new window containing the image is opened. You can zoom in or out using the “**Zoom**” pulldown menu of this window's menu bar. Music examples that can be played are available only for part 3 and part 4 of the 1558 edition of the *Istitutioni*. There is no MIDI provided for the corresponding examples in the 1589 edition.

### *The facsimile*

Close the window containing the image to return to the document window. If you scroll past the example, you will note two icons of this type: . This icon serves two different purposes in the application. Immediately after a music example, it hides an encoding of the original notation in DARMS (*Note Processor* dialect). Most users will not need this.


However, if the icon is followed by **[pb]** (i.e. page break), it indicates a facsimile page. Clicking such an icon will start the ImageView program. Initially, a small facsimile page will appear. You can enlarge it by maximising the window. If this does not show enough detail, drag the left mouse button and draw a rectangle over the image. As soon as you release the mouse button, this selection will be enlarged. This process can be repeated a number of times.

### *Internal links*

The TMI documents contain several different kinds of hyperlinks. To see some examples of **internal links**, close the facsimile window, go to the top of the navigator and select the third item, the “TAVOLA”. The table of contents emerges in the document window. The items in the second and third columns, i.e. chapter and page numbers, are underlined, indicating a hyperlink. If you click on any of these, the corresponding chapter or page will be displayed. You can return to the table of contents by clicking the “Backtrack” button (button 3 in figure 3).

These are not the only internal links. All four treatises contain numerous cross references. To see examples of these, go to part 2, chapter 48. Scrolling down one or two windows will bring you to the underlined phrase “cap. 16. della Prima parte”, a link to part 1, chapter 16. Use the “**Backtrack**” button to return to chapter 48. Towards the end of chapter 48 there is a similar link to part 2, chapter 39.

The three other treatises contain long indexes with links to pages. In the *Dimostrazioni*, the index is the “Tavola” at the beginning, in the *Istitutioni* (1589) it is the “Seconda Tavola”, and in the *Sopplimenti* the “Tavola” at the end of the book.

The icon  stands for the target of an internal link. If you click it, two things may happen. If there is only one link attached to it, it will be followed at once. If there is more than one, a pick list will be displayed as in figure 5.

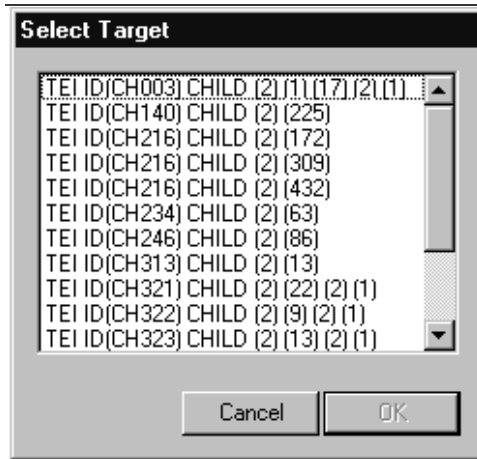



Figure 5. Pick list of links to chapter 15 of part 1. The label “CH140” stands for part 1, chapter 40, etc.

### *Names and external links*

Chapter 48 of part 2 contains a number of other kinds of links as well. The first underlined item in this chapter is a name, Aristotle. Clicking on this name brings you to a list of personal names, which is still in its preliminary form. In future versions of this document, there will be some biographical information here, as well as links to electronic texts of his writings, or perhaps to an Aristotle Home page. We haven’t found such a home page so far, and in general we would like you to send us any useful links you know.

Below the previous link is another link, a reference to book 10 of Aristotle’s *Metaphysics*. At this stage of the TMI, only the beginnings of these links are implemented (with one exception to be discussed presently). Gradually, as the system evolves, such links will receive their endpoints (if electronic texts of these works are available).

Now return to the TMI opening screen. You can do this by clicking “**Backtrack**” a number of times; it is easier however to select the “**Open File**” button (figure 3, button 2) and then the file “tmihome.sgm”. From the opening screen, select the *Sopplimenti musicali* (1589), and use the navigator to go to book 2 (“Secondo Libro”), chapter 15; then scroll down three or four screens to the second occurrence of the icon . This icon indicates a marginal note in the original text, the contents of which appear when you click the icon. In this case the note provides references to two other treatises by Zarlino. You can follow these links by clicking them. Use the “**Backtrack**” button to return to the *Sopplimenti*.

### *Searching*

The search facility can be activated in two ways, by clicking an icon in the Panorama Viewer toolbar (no. 5 in figure 3), or by choosing “**Search**” in the popup menu. In both cases, the same dialogue box appears. Type “senario” (i.e. the number six, from which Zarlino derives the consonances), and click “**OK**”. Two things will happen. In the document window, the first occurrence of the term after the present position appears. And to the right of it, the “occurrence density display” emerges, showing the distribution of the term over the entire document. Clicking on the occurrence density display scrolls the document to the corresponding position. Alternatively, you can use menu buttons 6 and 7 (see figure 3) to navigate through the occurrences of the term.



The search facility has a number of advanced features, mainly for using wildcards and SGML mark-up in the search. These features are explained in the Panorama Viewer Manual, sections 5 and 9. To give one example, the search pattern “m[u|v]sica” produces all occurrences of either “musica” or “mvsica”. The latter occurs only in the headings of the eight books of the *Sopplimenti*.

### *Navigators*

The default navigator is a table of contents. But in principle any document element can be used as a navigator. The item “Navigator” in the popup menu lists the available navigators. The last option in the menu is not to display a navigator. The available navigators are:

1. Table of contents.
2. Names, which displays all occurrences of all names in the order in which they appear in the document. (It is not a name index!)
3. Marginal notes, showing the texts hidden behind the icons. This does not work well for actual navigation.
4. Errors and corrections, listing variants and editorial corrections. The way in which these are indicated is still unsystematic. Generally, what is blue is accepted, what is red is rejected. Expanded abbreviations (usually for m, n, or que) are also shown in blue.
5. Illustrations: shows all illustrations and music examples.

### *Style sheets*

One of the strengths of SGML is that a document can be displayed in different ways, by using different navigators and style sheets. There is however only one style sheet available for the TMI; others will be distributed over the Internet. If there is more than one style sheet, you can select one in the same way you select a navigator. You can try this out in the Panorama Viewer Manual, which has two styles.

For the Zarlino treatises, a hypothetical ‘easy reading’ style sheet would show only the preferred readings, and show them in black, like the rest of the text. A ‘diplomatic’ style sheet would show the readings of the original text, and an ‘influences’ style sheet might show names and titles in bright colours, and have marginal notes integrated into the text.

All of this is possible only because SGML documents contain *tags* for document elements. If you wish to see the tagging of the documents, choose “**Options**” from the popup menu, and select “**Show Tags**”. Tags are then shown as labels, as shown in figure 6.

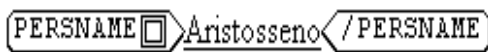


Figure 6. Tagging for a personal name

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SGML tags have ‘attributes’, which you can see by clicking on the square in the start tag label.

### *Personal Webs*

Panorama Viewer contains a feature called “Personal Webs” which allows you to make your own annotations, links, and bookmarks. Such webs may be quite complex, so please read the Panorama Viewer Manual carefully before you make use of this feature.

*To annotate a section of text or of an image* (that’s possible too!), first select it by dragging the mouse over it. Release the mouse button, and click on the Annotation button (No. 8 in the popup menu, see figure 3), and write your annotation in the **note** window. Click on OK when

you are finished. The window closes and the following icon appears: . Click on this icon if you want to read your annotation.

**To create a link**, select a section of the document in the same way but click on the Begin Link button (No. 9 in the popup menu, see figure 3). Then select the destination of the link (which may be in a different document!) and click the Connect Link button (No. 10 in the popup menu, see figure 3). Click OK and the link is complete. Both ends are marked by the icon . Click on this icon if you want to follow the link.

**To create a bookmark**, first select a section of the document. Then choose “Web” and then “Bookmark” from the popup menu. The Annotation window will appear, but note that the checkbox “Bookmark” is activated: you do not have to make an annotation. Click “OK” to finish. The annotation icon will be inserted into the document, but also a new item will be added to the popup menu called “Bookmark”, giving you access to a bookmark list. Wherever you are in the application, clicking on an item in the list will bring you to the corresponding bookmark. A useful place for a bookmark is the opening screen of the TMI. Please note that the facsimiles and DARMS codes cannot be annotated.

### ***Conclusion***

This concludes this tour of the TMI. We hope it will inspire you to further exploration of Zarlino’s treatises. If you need more help with, consult the TMI Introduction, which you can reach through the opening screen, and/or the Panorama Viewer Manual. Please don’t forget to register as a user. After using the TMI for some time, we would also greatly appreciate it if you would complete the questionnaire and return it to us. The opening screen of the TMI contains links to the registration form and questionnaire.

You may contact the TMI at the following address:

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