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The Processes of Creation
and Recreation in Persian Classical
Music

Volume One

Thesis Submitted for the Degree of PhD

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Goldsmiths' College
University of London

March 1996
Abstract

This thesis presents a critical examination of the processes of creativity in the performance of Persian classical music. Using current literature, information from musicians, and detailed musical analyses, the thesis endeavours to reach an understanding of what creativity means in the Persian context, and to examine the ways in which creativity takes place and the factors which affect it. A consideration of the nature of human creativity in general is followed by a critique of the concepts and terminology of creativity used within (ethno)musicology. Several areas are subsequently explored for their potential contribution to an understanding of creative musical processes. There is a consideration of possible parallels between musical and linguistic creativity, as well as an exploration of theories about the psycho-physiological determinants of musical creativity. With specific reference to Persian classical music, various aspects of the basic canonic repertoire, the *radif*, are examined, and this is followed by a discussion of the processes by which the *radif* is learnt, this being a crucial stage in laying the foundations of musical creativity. There is also a consideration of the concepts of creativity in this musical tradition, as well as changes to such concepts in recent years.

The musical analyses focus on a number of performances and versions of the *radif*, primarily from *dastgāh Segāh*. There is an examination of the sectional organisation of both performances and *radifs*, as well as of compositional procedures, typical melodic patterns, and including specific focus on the ways in which material from the *radif* is treated in performance. The aim is to comprehend how it is that musicians use the knowledge acquired during training to present unique expressions of the musical tradition at every performance occasion. The thesis seeks to contribute to a greater understanding of generative musical processes and ultimately, towards a better understanding of the nature of human creativity.
Acknowledgements

I am deeply indebted to a great many people for their advice and support. In particular, I would like express my thanks to Firooz Berenjia, who gave up so much of his time to talk to me and to give me lessons on setār, and to the other musicians whom I interviewed: Farāmarz Pāyvar, Parviz Meshkatiān, and Hossein Alizādeh.

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and to Navid, for giving it all meaning.
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Example 27 (continued)

| Radif 3       | 12'12" |
| Radif 1       | 12'35" |
| Radif 2       | 13'05" |

Example 28  Opening of *muyeh*

| Performance 17 | 13'35" |
| Performance 15 | 14'42" |
| Performance 27 | 15'41" |
| Performance 8  | 16'43" |
| Performance 29 | 17'16" |
| Performance 4  | 17'42" |
| Radif 3        | 18'11" |
| Radif 1        | 18'41" |
| Radif 2        | 19'03" |

Example 29  Opening of *mokhālef*

| Performance 4  | 19'45" |
| Performance 8  | 20'26" |
| Performance 16 | 21'01" |
| Performance 15 | 21'45" |
| Performance 9  | 22'25" |
| Performance 17 | 23'11" |
| Performance 27 | 24'48" |
| Performance 10 | 26'17" |
| Radif 3        | 26'54" |
| Radif 1        | 28'22" |
| Radif 2        | 29'00" |

(NB. Comparative Examples 9, 15, 21, and 26 are not included on the cassette)
**Cassette 2:** Musical Examples Analysed in Chapter Six (all examples are in Segāh unless stated otherwise)

<table>
<thead>
<tr>
<th>Side A</th>
<th>Musician</th>
<th>Instrument</th>
<th>Gusheh</th>
<th>Location in Real Time</th>
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**Section 6.2.3**

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<th>Gusheh</th>
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**Section 6.2.4**

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<th>Gusheh</th>
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<td>Instrument</td>
<td>Gusheh</td>
<td>Location in Real Time</td>
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Section 6.2.5

| Performance 20 | Ebādi       | setār | darāmad | 29'03" |
| Performance 20 | Ebādi       | setār | darāmad | 29'24" |
| Performance 3  | Borumand    | tār   | mokhālef| 30'23" |
| Performance 3  | Borumand    | tār   | mokhālef| 30'52" |
| Performance 3  | Tehrāni     | santur| mokhālef| 31'17" |

Section 6.3

<p>| Performance 9  | Shafeiān    | santur| darāmad | 31'42&quot; |
| Performance 20 | Ebādi       | setār | darāmad | 32'06&quot; |
| Performance 15 | Andalibi    | nei   | darāmad | 32'30&quot; |
| Performance 12 | Malek       | santur| zābol   | 32'51&quot; |
| Performance 17 | Shahnāz     | tār   | darāmad | 33'08&quot; |
| Performance 6  | Shafeiān    | santur| mokhālef| 33'27&quot; |
| Performance 24 | Safvate     | setār | mokhālef| 33'55&quot; |
| Performance 9  | Shafeiān    | santur| darāmad | 34'33&quot; |
| Performance 9  | Shafeiān    | santur| mokhālef| 34'50&quot; |
| Performance 9  | Shafeiān    | santur| mokhālef| 35'11&quot; |
| Performance 28 | Shajariān   | male voice | maqlub | 35'33&quot; |
| Performance 16 | Meshkātiān | santur| mokhālef| 36'01&quot; |
| Performance 13 | Sharīf      | tār   | mokhālef| 36'24&quot; |
| Performance 20 | H.Badii     | violin| mokhālef| 36'54&quot; |</p>
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<th>Instrument</th>
<th>Gusheh</th>
<th>Location in Real Time</th>
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**Side B**

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<th>Musician</th>
<th>Instrument</th>
<th>Gusheh</th>
<th>Location in Real Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>[117] 1</td>
<td>Shajariân</td>
<td>male voice</td>
<td>mokhâlef</td>
<td>0'09&quot;</td>
</tr>
<tr>
<td>[118] 12</td>
<td>Malek</td>
<td>santur</td>
<td>zábol</td>
<td>0'47&quot;</td>
</tr>
<tr>
<td>[119] 22</td>
<td>Malek</td>
<td>santur</td>
<td>darâmad</td>
<td>1'15&quot;</td>
</tr>
<tr>
<td>[120] 22</td>
<td>Malek</td>
<td>santur</td>
<td>zábol</td>
<td>1'35&quot;</td>
</tr>
<tr>
<td>[121] 17</td>
<td>Nâhid</td>
<td>nei</td>
<td>muye</td>
<td>1'55&quot;</td>
</tr>
<tr>
<td>[122] 16</td>
<td>Meshkâtiân</td>
<td>santur</td>
<td>zábol</td>
<td>2'29&quot;</td>
</tr>
<tr>
<td>[123] 23</td>
<td>During</td>
<td>setâr</td>
<td>bastenegâr (zábol mode)</td>
<td>2'47&quot;</td>
</tr>
<tr>
<td>[124] 23</td>
<td>During</td>
<td>setâr</td>
<td>zábol</td>
<td>3'08&quot;</td>
</tr>
</tbody>
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### Section 6.4

<table>
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<th>Gusheh</th>
<th>Location in Real Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>Zarif</td>
<td>tār</td>
<td>maqlub</td>
<td>3'24&quot;</td>
</tr>
<tr>
<td>21</td>
<td>Ebādi</td>
<td>setār</td>
<td>maqlub</td>
<td>4'42&quot;</td>
</tr>
<tr>
<td>16</td>
<td>Meshkātiān</td>
<td>santur</td>
<td>maqlub</td>
<td>5'05&quot;</td>
</tr>
<tr>
<td>16</td>
<td>Meshkātiān</td>
<td>santur</td>
<td>eshāreh be maqlub</td>
<td>5'25&quot;</td>
</tr>
<tr>
<td>9</td>
<td>Shafeiān</td>
<td>santur</td>
<td>eshāreh be maqlub</td>
<td>5'43&quot;</td>
</tr>
<tr>
<td>18</td>
<td>Shafeiān</td>
<td>santur</td>
<td>maqlub</td>
<td>6'03&quot;</td>
</tr>
<tr>
<td>11</td>
<td>Golpāyegānī</td>
<td>male voice</td>
<td>maqlub</td>
<td>7'00&quot;</td>
</tr>
<tr>
<td>1</td>
<td>Radif 1</td>
<td>tār</td>
<td>hāzeen</td>
<td>7'28&quot;</td>
</tr>
<tr>
<td>3</td>
<td>Radif 3</td>
<td>santur</td>
<td>hāzeen</td>
<td>7'50&quot;</td>
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<tr>
<td>16</td>
<td>Meshkātiān</td>
<td>santur</td>
<td>hāzeen</td>
<td>8'10&quot;</td>
</tr>
<tr>
<td>26</td>
<td>Borumand</td>
<td>tār</td>
<td>forud of Segāh</td>
<td>8'27&quot;</td>
</tr>
<tr>
<td>18</td>
<td>Pāyvar</td>
<td>santur</td>
<td>darāmad</td>
<td>8'47&quot;</td>
</tr>
<tr>
<td>23</td>
<td>During</td>
<td>setār</td>
<td>forud of mokhālef</td>
<td>9'11&quot;</td>
</tr>
<tr>
<td>16</td>
<td>Meshkātiān</td>
<td>santur</td>
<td>mokhālef</td>
<td>9'25&quot;</td>
</tr>
<tr>
<td>18</td>
<td>Pāyvar</td>
<td>santur</td>
<td>darāmad</td>
<td>9'48&quot;</td>
</tr>
<tr>
<td>27</td>
<td>Pāyvar</td>
<td>santur</td>
<td>zabol</td>
<td>10'12&quot;</td>
</tr>
<tr>
<td>18</td>
<td>Pāyvar</td>
<td>santur</td>
<td>forud of Segāh</td>
<td>10'31&quot;</td>
</tr>
<tr>
<td>17</td>
<td>Pāyvar</td>
<td>santur</td>
<td>mokhālef</td>
<td>10'48&quot;</td>
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### Section 6.5

<table>
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<th>Musician</th>
<th>Instrument</th>
<th>Gusheh</th>
</tr>
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<td>17</td>
<td>Nāhid</td>
<td>nei</td>
<td>muyeh</td>
</tr>
<tr>
<td>1</td>
<td>Lotfi</td>
<td>tār</td>
<td>muyeh</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(in forud of Segāh)</td>
</tr>
<tr>
<td>7</td>
<td>Lotfi</td>
<td>tār</td>
<td>zabol</td>
</tr>
<tr>
<td>10</td>
<td>Majd</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>17</td>
<td>Pāyvar</td>
<td>santur</td>
<td>mokhālef</td>
</tr>
<tr>
<td>16</td>
<td>Meshkātiān</td>
<td>santur</td>
<td>eshāreh be maqlub</td>
</tr>
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### Section 6.6

<table>
<thead>
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<th>Instrument</th>
<th>Gusheh</th>
</tr>
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<tr>
<td>1</td>
<td>Borumand</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>1</td>
<td>Borumand</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>1</td>
<td>Borumand</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>1</td>
<td>Borumand</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>Performance</td>
<td>Musician</td>
<td>Instrument</td>
<td>Gusheh</td>
</tr>
<tr>
<td>-------------</td>
<td>----------</td>
<td>------------</td>
<td>--------</td>
</tr>
<tr>
<td>10</td>
<td>Majd</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>10</td>
<td>Majd</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>10</td>
<td>Majd</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>10</td>
<td>Majd</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>10</td>
<td>Majd</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>10</td>
<td>Majd</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>10</td>
<td>Majd</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>10</td>
<td>Majd</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>30</td>
<td>Alizādeh</td>
<td>tār</td>
<td>daramad (Māhur)</td>
</tr>
<tr>
<td>16</td>
<td>Meshkåtiân</td>
<td>santur</td>
<td>mokhālef (Segāh)</td>
</tr>
<tr>
<td>1</td>
<td>Borumand</td>
<td>tār</td>
<td>feyli (Māhur)</td>
</tr>
<tr>
<td>34</td>
<td>Shajariān</td>
<td>male voice</td>
<td>feyli (Māhur)</td>
</tr>
<tr>
<td>31</td>
<td>Alizådeh</td>
<td>tār</td>
<td>feyli (Māhur)</td>
</tr>
<tr>
<td>2</td>
<td>Karimi</td>
<td>male voice</td>
<td>feyli (Māhur)</td>
</tr>
<tr>
<td>2</td>
<td>Karimi</td>
<td>male voice</td>
<td>feyli (Māhur)</td>
</tr>
<tr>
<td>8</td>
<td>P.Kåmkår</td>
<td>santur</td>
<td>dād (Māhur)</td>
</tr>
<tr>
<td>35</td>
<td>Talåi</td>
<td>tār</td>
<td>dād (Māhur)</td>
</tr>
<tr>
<td>2</td>
<td>Karimi</td>
<td>female voice</td>
<td>dād (Māhur)</td>
</tr>
<tr>
<td>1</td>
<td>Borumand</td>
<td>tār</td>
<td>khosravānī (Māhur)</td>
</tr>
<tr>
<td>11</td>
<td>Borumand</td>
<td>tār</td>
<td>zābol (Segāh)</td>
</tr>
<tr>
<td>32</td>
<td>Lotfi</td>
<td>setār</td>
<td>dād (Māhur)</td>
</tr>
<tr>
<td>1</td>
<td>Borumand</td>
<td>tār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>23</td>
<td>During</td>
<td>setār</td>
<td>mokhālef</td>
</tr>
<tr>
<td>23</td>
<td>During</td>
<td>setār</td>
<td>bastenegār (zābol mode)</td>
</tr>
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</table>

Section 6.8.1
<table>
<thead>
<tr>
<th>Performance</th>
<th>Musician</th>
<th>Instrument</th>
<th>Gusheh</th>
<th>Location In Real Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Borumand</td>
<td>tār</td>
<td>mokhālef</td>
<td>21'02&quot;</td>
</tr>
<tr>
<td>32</td>
<td>Lotfi</td>
<td>setār</td>
<td>mokhālef</td>
<td>21'17&quot;</td>
</tr>
</tbody>
</table>

Section 6.8.2
The musical examples in this section are of zobol in the following renditions:

<table>
<thead>
<tr>
<th>Side A</th>
<th>Musician</th>
<th>Instrument</th>
<th>Location in Real Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance 1</td>
<td>Lotfi</td>
<td>tār</td>
<td>0'19&quot;</td>
</tr>
<tr>
<td></td>
<td>Shajariān</td>
<td>male voice</td>
<td></td>
</tr>
<tr>
<td>Performance 2</td>
<td>Alizādeh</td>
<td>tār</td>
<td>3'35&quot;</td>
</tr>
<tr>
<td>Performance 3</td>
<td>Sabā</td>
<td>setār</td>
<td>8'48&quot;</td>
</tr>
<tr>
<td>Performance 4</td>
<td>Ebādī</td>
<td>setār</td>
<td>12'50&quot;</td>
</tr>
<tr>
<td>Performance 5</td>
<td>Tului</td>
<td>tār</td>
<td>14'31&quot;</td>
</tr>
<tr>
<td>Performance 6</td>
<td>Shafeiān</td>
<td>santur</td>
<td>17'48&quot;</td>
</tr>
<tr>
<td>Performance 7</td>
<td>Lotfi</td>
<td>tār</td>
<td>23'48&quot;</td>
</tr>
<tr>
<td></td>
<td>Shajariān</td>
<td>male voice</td>
<td></td>
</tr>
<tr>
<td>Performance 8</td>
<td>Bahārī</td>
<td>kamāncheh</td>
<td>26'55&quot;</td>
</tr>
<tr>
<td>Performance 9</td>
<td>Shafeiān</td>
<td>santur</td>
<td>28'21&quot;</td>
</tr>
<tr>
<td>Performance 10</td>
<td>Majd</td>
<td>tār</td>
<td>32'42&quot;</td>
</tr>
<tr>
<td>Performance 11</td>
<td>Borumand</td>
<td>tār</td>
<td>33'51&quot;</td>
</tr>
<tr>
<td></td>
<td>Gulpāyegānī</td>
<td>male voice</td>
<td></td>
</tr>
<tr>
<td>Performance 12</td>
<td>Malek</td>
<td>santur</td>
<td>37'56&quot;</td>
</tr>
<tr>
<td>Performance 13</td>
<td>Sharif</td>
<td>tār</td>
<td>42'37&quot;</td>
</tr>
<tr>
<td>Performance 15</td>
<td>Andalibi</td>
<td>nei</td>
<td>43'48&quot;</td>
</tr>
<tr>
<td></td>
<td>P. Kāmkār</td>
<td>santur</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Side B</th>
<th>Musician</th>
<th>Instrument</th>
<th>Location in Real Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance 16</td>
<td>Meshkātiān</td>
<td>santur</td>
<td>0'08&quot;</td>
</tr>
<tr>
<td>Performance 17</td>
<td>Nāhid</td>
<td>nei</td>
<td>2'05&quot;</td>
</tr>
<tr>
<td></td>
<td>Shahidi</td>
<td>male voice</td>
<td></td>
</tr>
<tr>
<td>Performance 18</td>
<td>Pāyvar</td>
<td>santur</td>
<td>3'35&quot;</td>
</tr>
<tr>
<td>Performance 22</td>
<td>Malek</td>
<td>santur</td>
<td>8'12&quot;</td>
</tr>
<tr>
<td>Performance 24</td>
<td>Safvate</td>
<td>setār</td>
<td>11'18&quot;</td>
</tr>
<tr>
<td>Performance 25</td>
<td>Borumand</td>
<td>tār</td>
<td>13'34&quot;</td>
</tr>
<tr>
<td>Performance 26</td>
<td>Borumand</td>
<td>tār</td>
<td>14'58&quot;</td>
</tr>
<tr>
<td>Performance 27</td>
<td>Pāyvar</td>
<td>santur</td>
<td>17'15&quot;</td>
</tr>
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<td>Shajariān</td>
<td>male voice</td>
<td></td>
</tr>
<tr>
<td>Performance 29</td>
<td>R. Badii</td>
<td>kamāncheh</td>
<td>22'41&quot;</td>
</tr>
<tr>
<td>Radif 1</td>
<td>Borumand</td>
<td>tār</td>
<td>25'27&quot;</td>
</tr>
<tr>
<td>Radif 2</td>
<td>Karimi</td>
<td>male voice</td>
<td>26'34&quot;</td>
</tr>
<tr>
<td>Radif 3</td>
<td>Tofeegh</td>
<td>setār</td>
<td>28'00&quot;</td>
</tr>
</tbody>
</table>

The examples of zobol from radifs 4, 5, and 6 were in printed form and are therefore not included on the cassette.
1. Persian words have been transliterated in various ways in the English language literature. In this study, there has been an attempt to convey the sounds of spoken Persian as closely as possible. As such, the following spellings have been used, except where words (particularly names) are conventionally spelt differently (in which case the conventional spelling has been adopted).

- **a** as in "hat"
- **à** as in "bath"
- **eh** as in "let" (slightly aspirated)
- **u** as in "jute"
- **i** this vowel sound is extended in Persian, and sounds like **ee**, as in "bee"
- **kh** as in "Bach"
- **q** a guttural sound, similar to the French rolled r

Names of musicians which include an extended "a" have generally been transliterated using ą (for example, Alizadeh), except where reference is being made to a specific non-Persian language publication by that musician in which the name is spelt using Roman letters and without diacriticals. In such cases, the published spelling is followed whilst reference is made to that publication.

2. An apostrophe after a letter (usually an "a" or an "e"), for example as in Ma'rufi, indicates the sound created by a glottal stop.

3. The suffixes "-e" or "-ye" denote the possessive case.

4. In Persian, plural forms of words are usually generated using the suffix "-ha" or "-an" (although there are a number of irregular plural forms). In this study, however, in order to ease the flow of the English text, plurals have generally been indicated using the English suffix "s": for example, "gushehs" rather than "gusheh-ha", "dastgahs" rather than "dastgah-ha", etc.
Introduction

At the heart of this study lies the desire to fathom the unfathomable: to understand musical creativity, and specifically the ways in which individual musicians create within the Persian classical tradition. It has been inspired by the musicians themselves, and also by the work of many ethnomusicologists who have sought to answer similar questions in the context of other musics. Perhaps a deeper understanding of creative processes in music will point towards a theory of musical creation with cross-cultural application. Furthermore, comparisons with creativity in other spheres of human activity may reveal common processes which are rooted deep in the human mind.

The journey of understanding and coming to terms with the relationship between past and present is one that is shared by every human being. And it is here at the crossroads between past, present, and future that creativity lies: between the individual and the society of which s/he is a part; between the art work and the tradition which gives birth to it; between cultural inheritance and the individual who makes that inheritance his or her own - for a brief moment - before it moves on to the future. Indeed, this study is itself part of the same journey: it is a personal journey to the author's past, which takes her to the roots of a culture which has always been hers, but to which she has inevitably remained partly an outsider. And, since no work of scholarship is a "neutral" or "objective" artefact, but the expression and embodiment of a personal perspective, the testimony of that journey is written on every page.

A number of points should be made regarding the methodological approach adopted for this study. For a number of reasons, it was not possible to carry out fieldwork in Iran for the purposes of this study. To a large extent, the author's own cultural background, the subliminal knowledge absorbed from childhood, and her constant contact with Iran through friends and family, partly compensated for the "cultural absorption" aspect of the fieldwork experience. Moreover, the author was able to interview a number of musicians, and thus to gain an insight into the musician's perspective and into some aspects of cognition. In particular, over a number of years, she spent many hours with her main informant and setār teacher, a musician based in the UK. Other musicians interviewed (and
corresponded with) were mostly based in Iran, and were visiting this country for concert performances. These meetings were extremely useful, but they were ultimately short-term. All of the interviews were carried out in Persian and quotations from them were translated by the author for inclusion in the text (the interview with Jean During was carried out in English). Even though it was not possible to enter an intensive pupil-teacher relationship which might have been feasible had it been possible to spend time in Iran, it gradually became apparent in the course of the research that much of the cognitive information that the author was trying to reach lay beyond that which any musician could express to her in linguistic terms.

The study which follows is largely based on commercial recordings (some of live performances), and recordings of live performances in this country (some of which were attended by the author). The Persian classical tradition is today firmly in the public domain of recording and broadcasting, and indeed, these are the media through which it is mostly listened to. As such, the author considered it to be entirely appropriate to use commercially available recordings for the study. The nature of this study was such that there seemed to be little point in providing a conventional "literature survey" on Persian classical music, since much of the literature only deals peripherally with the subject in hand. Thus, whilst many of the references to the extant literature on this music focus on five or six central texts, details of other publications are given, although not "surveyed" as such. In addition, the general literature of a number of other areas is discussed, in particular that on creativity; musical improvisation; and music and linguistics, and such discussion appears at relevant points in the text. Most of the publications referred to for this study were in the English language, although use was also made of Persian and French texts (and also German) and all direct quotations from these publications were translated by the present author. Since the majority of the musicians whose performances are analysed in this study are male, the pronouns "he" and "his" will generally be used (in preference to "s/he", "her/his") in discussing general points (in fact, among the musicians discussed only three are female, two singers: Parisā and Khātēreh Parvāneh, and one instrumentalist: Mehrbānu Tofeegh). Occasionally, however, it was felt to be appropriate to use the all-inclusive forms of these pronouns in discussing issues
which could apply to either sex.

Persian classical music, known in Iran as musiqi-ye assil or musiqi-ye sonnati, is an improvised tradition in which the creative role of the performer is crucial, and at the heart of which lies the canonic repertoire of the radif, which is memorised during many years of training. This study is an exploration of the creative processes involved in the improvised performance of this music. Chapter One presents a broad examination of the concepts and terminology used to discuss musical creativity within (ethno)musicology, and considers various aspects of the complex relationship between the individual musician and the tradition in which s/he works. This chapter also suggests ways in which an exploration of other areas of human creativity might shed light on processes of musical creation. Various facets of the canonical repertoire of Persian classical music are discussed in Chapter Two, including the processes by which this repertoire is transmitted from teacher to pupil. Chapter Three examines the question of cognition in relation to creative processes in Persian music, and explores the ways in which the cognition and the practice of creativity have been affected by, and in turn affected, changes within the musical tradition. Following this, Chapters Four to Seven present detailed analyses of a number of different versions of one particular section of the Persian classical repertoire, and explore a range of questions relating to musical creativity and the nature of the relationship between radif and improvised performance, in particular the ways in which musicians use the material of the radif in the ongoing "re-creation" of tradition at every performance. Ultimately, the aim of this study is to reach some understanding of the processes by which musicians create in performance, the various factors which come to bear on those processes, and the ways in which creativity is conceptualised and understood in the Persian tradition.
1.1 Introduction

Among the many insights that studying the musics of the world has given to the discipline of ethnomusicology, one of the most exciting has been a greater awareness of the nature of all music-making as a creative human activity. Unlike other activities in which individual idiosyncrasies and variations may be largely incidental, in music and the other expressive arts, they are central to the existence and function of the art. Notwithstanding ritual contexts in which personal expression in music may be censured, generally speaking music represents an important means by which human beings can express their individual existence and identity. This idea complements rather than contradicts the view of music as a socially cohesive force, since the significance of music lies partly in its ability to simultaneously symbolise and blend together these potentially conflicting realities of human experience:

In the African context, the rhythm expresses the perfect co-operation of two performers who nevertheless preserve their individuality by maintaining different main beats. (Blacking 1970:18)

King expresses similar ideas:

... the performer, at one and the same time, reaffirms the basic values of the society (those closely structured and hence limiting) and presents the audience with the breaking of the bounds of permissible behaviour. (1980:171-172)

The importance of culture as a complex of human-made symbols has been an area of great interest to both semioticians and anthropologists (see in particular Turner 1967, 1969 and Geertz 1973). Music may be one of the most powerful cultural symbols both because of its intrinsically ambiguous nature and because of its ability to symbolise many different expressions of identity at the same time, a symbolic power which is shared to varying degrees by other expressive arts.
The ability of music to symbolise individual identity within society at large functions both synchronically and diachronically. The individual re-creation of tradition serves not only to affirm the place of the individual human being within society, but also within the general matrix of humanity - past, present, and future. Each creative expression becomes part of the ongoing perpetuation of human culture: individuals may live and die, but culture endures. Thus, Blacking regards the fundamental function of any artistic process "... to mediate between the impermanent and the permanent in man ..." (1977b:22). This enduring cultural tradition which is passed from generation to generation and which is in fact the accumulation and consolidation of the countless creative contributions of individuals over time might be regarded as an attempt to defy the mortality of which human beings are so aware:

Creativity is a yearning for immortality. We human beings know that we must die. We have, strangely enough, a word for death. We know that each of us must develop the courage to confront death. Yet we must also rebel and struggle against it. Creativity comes from this struggle - out of this rebellion the creative act is born. (May 1975:27)

Taking as his examples the myths of the ancient Greeks and the stories of the Bible, as well as the statements of creative individuals, past and present, May argues that the source of creativity is the eternal conflict between man and God, man seeking and finding immortality through art.

General literature on the subject of creativity has tended to reflect diverging philosophies: on the one hand the idea of creativity as a mark of genius possessed by only a few individuals; on the other creativity as inherent to the human condition. Following advances in psychology and in the understanding of human cognitive processes in the course of this century, the 1950s and 1960s in particular saw an increased number of publications dealing with general questions of creativity (see, for example, Guildford (1950) whose work was seminal at this time, Ghiselm (1952), Lowenfield (1952), Anderson (1959), Smith (1959), Taylor (1959), Heinze and Stein (1960), Koestler (1964), and Summerfield and Thatcher (1964)), mainly from within the discipline of psychology itself. Later publications
include those by Abt and Rosner (1970), Vernon (1970), May (1975), Mansfield and Busse (1981), Weisberg (1986), and Sternberg (1988). Abt and Rosner consider creativity in a wide range of scientific and artistic fields, and draw conclusions regarding similarities between processes of scientific and artistic creation. This publication also includes a review of literature to date on the subject. Highly influential at this time (and discussed by Abt and Rosner) was the emergence of generative linguistics, and particularly the work of Noam Chomsky, which proposed (in direct contrast to the ideas of psychologists such as Skinner) that the ability to speak language demands a developed creative faculty of every human being. Similarly, Koestler (1964; one of the most comprehensive general publications on the subject of creativity) and Weisberg (1986) both argue for a theory of creativity which takes into account the innate creative abilities of all human beings, albeit from slightly differing viewpoints. Weisberg in particular attempts to dispel some of the myths surrounding creativity by drawing on specific examples to suggest that the cognitive processes involved in the production of works of artistic and scientific "genius" are fundamentally the same as those used in "every-day" activities such as problem-solving and speech.

1.2 Ethnomusicology, Creativity, and the Study of the Individual

Creativity thus lies at the heart of the relationship between individual and society, between past and present, between the work of art and the tradition in which it is embedded. The subject of musical creativity, however, has for centuries been shrouded in myth. In the case of European "art" music, it was the Romantic movement of the nineteenth century in particular which canonised the image of the creator of music - the composer - as a solitary inspired genius, often misunderstood by his time. The creation of music through "inspiration" seemed to render superfluous any detailed investigation of compositional processes, thus further strengthening the idea that the underlying cognitive processes were qualitatively different from those of other human beings. Moreover, until relatively recently, the creative roles of performer and listener were overshadowed by that of the composer, as was any consideration of the socio-cultural context in which the composer works. The discipline of musicology which emerged in the latter half of the nineteenth century was heavily informed by these paradigms, and
such ideas were, to some extent, inherited and perpetuated by the younger discipline of ethnomusicology (and prior to the 1950s, its predecessor, comparative musicology).

Whilst ethnomusicology as a discipline clearly has a great deal to contribute to the cross-cultural understanding of musical creativity, it has taken some time for scholars to recognise their ideal position for addressing such questions. An examination of general trends over the past fifty years reveals a gradual shift in the main areas of scholarly interest: from historical and general comparative matters prior to the 1950s, to the subsequent influence from anthropology and the resulting interest in the socio-cultural contexts of music-making, and finally the most recent focus of interest - the individual creative musician within society. Contemporary developments in ethnomusicology (as in other human and social sciences) indicate a growing awareness of the individual and of the importance of understanding his/her role in creative processes. In the course of the last twenty years, scholars such as Blacking (1989), Koskoff (1982), Nettl (1983), Feld (1984), and Rice (1987), have argued for greater consideration of the role of the individual creative musician. At the heart of Rice's proposal for a "Remodelling of Ethnomusicology" is the idea that ethnomusicology should seek to explain the "formative processes in music" as "historically constructed, socially maintained and individually applied" (Rice 1987:473, based on Geertz 1973:363-4). Significantly (and perhaps not coincidentally), this "model" also reflects the history of the development of ideas within the discipline as outlined above. Of particular importance has been the recent interest in "formative processes" as a means of understanding how music is created. The emerging interest in the individual musician has been described by Nettl as the "ethnomusicology of the person" (1983:288), and within this, the individual (both as producer and as receiver) is clearly considered within the socio-cultural context of which s/he is an integral part.

The history of ethnomusicology itself suggests a number of reasons as to why scholars prior to the 1970s rarely considered the role of the creative individual within musical traditions. For example, many early comparative musicologists
reacted against the ideas and assumptions of mainstream western musicology, questioning some of its basic tenets. As noted above, one of the most deeply entrenched of these was the prevailing importance accorded to the individual composer, to the neglect of socio-cultural considerations. Consequently, particularly from the 1950s onwards, and with the increased influence from anthropology, ethnomusicologists began to focus on social setting and contextual significance, almost to the extent of overlooking the fact that any social system is also an expression of the individual human beings which comprise it.

Just as anthropologists at this time tended to focus on the identification of social and cultural norms as against individual variation, so ethnomusicologists looked for musical norms rather than their individual expression. Indeed, this approach might be regarded as the most rational way of studying a particular music: to seek an understanding of what is "standard" and "typical" before attempting to explain individual variation. In addition, it should be remembered that one of the earliest concerns of "comparative musicology" (prior to the 1950s) was precisely that - to compare one musical tradition with another. It is clearly somewhat easier to compare musics through their respective norms than through the multitude of individual manifestations of those norms. More recent work has pointed to a dynamic relationship between musical norms and the "deviations" from them, such that whilst such norms are often nothing but hypothetical abstractions of individual expressions (or "deviations"), these individual expressions in turn can only be understood in relation to the - albeit theoretical - norms.

This overshadowing of the individual creative musician inevitably led to a certain marginalisation of the study of creative processes, since one implies the other. Influenced by the ideas of late nineteenth and early twentieth century scholars of folklore, ethnomusicologists for many years followed the assumption that one of the main differences between western art music and "other" musics was in their modes of creation: in the former, music was created by a known individual, usually using notation, whilst in the latter, musicians simply interpreted an

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1 It is not within the scope of this study to discuss the alleged appropriation of the term "musicology" by an area of study dealing mainly with the study of western "art" music. In spite of developments in recent years, ethnomusicology and musicology are still distinct fields of scholarship characterised by fundamental differences in approach. Therefore, the term "musicology" will be used in this study to refer to "traditional musicology" or "mainstream musicology" as distinct from "ethnomusicology".

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anonymous oral tradition which had been passed down over many generations.² For many of those studying "folk" or non-western musical traditions, the importance of the individual as creator was simply not recognised, since it was not thought possible that "primitives" or "peasants" might be capable of creative musical expression beyond the simple variation of pieces passed down or "communally" created:

The fact that the peasants, as individuals, are able to create absolutely new songs we have to doubt; there is no support for this either in data, or in their instinctive musical expression. (Bartók 1924:6, quoted in Kertész Wilkinson 1989:4)

Thus, a clear difference was perceived between the creative processes of western art composers and the (at best) variational techniques used in the rest of the world.

However, certain individuals such as Kodály and Grainger did recognise the creative ability of folk musicians, the latter writing even earlier than Bartók, in 1915:

The primitive musician unhesitatingly alters the traditional material he has inherited from thousands of unknown talents and geniuses before him to suit his own voice or instruments, or to make it conform to his purely personal taste for rhythm and general style. There is no written original to confront him with, no universally accepted standard to criticize him by. He is at once an executive and creative artist, for he not only remoulds old ditties, but also weaves together fresh combinations of more or less familiar phrases, which he calls "making new songs". (Grainger, cited by Balough 1982:69, quoted in Blacking 1987:45-46)

Whilst Grainger was ahead of his time in this, as in many of his other ideas,

² In this study, the term "oral tradition" is used in its conventional meaning to refer to musical traditions in which notation is not used. However, at the same time, it is acknowledged that all musical traditions depend upon the aural knowledge of individuals and are thus in fact "oral-aural traditions". Even in a tradition as "notation-bound" as western art music, the ability to read and interpret a written score depends largely on aural knowledge acquired over many years. Since all prescriptive notations make certain assumptions about the oral-aural tradition and thus aspects of the music which are redundant in notation, there is much that is omitted from the musical score, "In the first place, (music) writing can be learned only by oral-aural techniques; in the second, no conventional music writing can be read without them." (Seeger 1977:154). In terms of the present discussion, the oral-aural foundation of all musics is essential to understanding how musicians learn to create.
recent studies of generative processes have supported his suggestion that all music is the creation of an individual mind, dispelling the myth of "communal creation" which was the presumed source of much "folk" music, a myth which has in part served to perpetuate the questionable division between western art music and other musics. And yet, it would seem that whilst creative musicians continually draw from a communal tradition, such traditions are in themselves the accumulation of countless individual creations over many generations. It is this which Brailoiu refers to as the "unconscious collective" (1984:56; after Jung's "collective unconscious") and which underlies individual creation in all musics, an idea which perhaps gives new meaning to the concept of "communal creation". This will be explored further below.

1.3 Concepts and Terminology

The last twenty years has seen a growing number of publications on the subject of musical creativity in performance, both within ethnomusicology and in other areas of music study, and there is now a vast body of literature on this subject. This includes general publications on the subject of improvisation, as well as writings on improvisation in specific musics, for example, Avakian (1959), Ferand (1938 and 1961, the former being one of the earliest studies of improvisation in western music), Hentoff (1961), Datta and Lath (1967), Hood (1971), Touma (1971), Nettl and Foltin (1972), Faruqi (1974), Daniélou (1975), Mahdi (1976), Sudnow (1978), Jairazbhoy (1980), Sorrell and Narayan (1980), Durán (1981), Vetter (1981), Vaughan (1984), Wade (1984b), Lipiczky (1985), El-Shawan (1987), Qassim Hassan (1987), Baily (1989), Kartomi (1991), Racy (1991), Smith (1991), and Treitler (1991) (the latter four articles all in Volume 33(3) of The World of Music entitled "New Perspectives on Improvisation", edited by Bruno Nettl), Dean (1992), and Berliner (1994), and also publications aimed at the would-be improviser (for example, Portney Chase (1988)). A number of writers have also considered matters of improvisation and individual variation within general publications on specific musics (see for example Becker (1972), Kippen (1988a), and Wade (1984a)). In particular, the subject of improvisation has been of great interest to scholars of Asian musics, and also to writers on jazz, a fact which is evident in the above listing.
Among general publications, Nettl (1974), King (1980), Prévost (1984), Lortat-Jacob (1987), Pressing (1988), and Bailey (1992), all propose interesting and diverse theoretical approaches to the study of improvisation. Nettl (1974) presents one of the earliest critiques of the use of western terminology in discussing creativity in non-western musics. The proceedings of a forum presented at the Institute for Contemporary Arts (London) by the Association of Improvising Musicians includes contributions by Small, Durant, and Prévost (Prévost 1984), and is one of the most coherent attempts to define improvisation (and its relationship to performance from notation). Lortat-Jacob (1987) also provides a particularly thorough exploration of improvisation from a cross-cultural perspective. This publication and that by Bailey (1992) both address general issues whilst also including chapters which discuss improvisation in specific musics. Pressing (1988), whose approach is heavily informed by music psychology, suggests parallels between improvisation and various problem-solving techniques within the field of artificial intelligence, and also provides a comprehensive list of publications dealing with musical improvisation. Other writers who have contributed to an understanding of improvisational processes include Rink (1993), who discusses the ideas of Schenker in relation to improvisation, and Hall (1992) who explores the cultural basis of improvisation.

Yet despite the growing interest amongst ethnomusicologists (and others) in the creative individual and his/her relationship to tradition, this area of study has been frustrated by somewhat confused and ill-defined concepts and terminology. Many of these tools of thought and discussion are closely bound up with the assumptions of western art music and musicology (from which they were inherited) and have been used by ethnomusicologists who have rarely questioned their precise meanings and mutual relationships or indeed their relevance to non-western musics. Not only have these terms brought to ethnomusicology many culturally-bound assumptions and associations, but they have also perpetuated some of the (mis)conceptions of musicology regarding creativity in music within ethnomusicology itself. In the context of this study, it is the terms "improvisation" and "composition" in particular which demand serious re-examination, since scholars often use these as if they refer to well-defined and universally agreed static concepts, whilst in fact they indicate dynamic processes, the definition of
which is highly problematical. Whilst such terms (or similar ones) are clearly necessary to any discussion of musical creation, it is important to acknowledge and address some of the issues raised by their application.

1.3.1 Improvisation and Composition - Definitions

The New Grove Dictionary of Music and Musicians defines improvisation as:

The creation of a musical work, or the final form of a musical work, as it is being performed. It may involve the work's immediate composition by its performers, or the elaboration or adjustment of an existing framework, or anything in between ... To some extent every performance involves elements of improvisation, though its degree varies according to period and place; and to some extent every improvisation rests upon a series of conventions or implicit rules ... By its very nature - in that improvisation is essentially evanescent - it is one of the subjects least amenable to historical research. (ed. Sadie 1980:31-32)

This definition clearly presents the view of the improviser as combining the roles of performer and composer. However, unlike written composition, which may require relatively prolonged working and reworking of materials, the improviser composes within a specified time-space in performance. Ferand considers improvisation to be the source of all music:

The spontaneous invention and shaping of music while it is being performed is as old as music itself. The very beginnings of musical practice can scarcely be imagined in any form other than that of instantaneous musical expression - of improvisation ... there is scarcely a single field in music that has remained unaffected by improvisation, scarcely a single musical technique or form of composition that did not originate in improvisatory practice or was not essentially influenced by it. The whole history of the development of music is accompanied by manifestations of the drive to improvise. (Ferand 1961:5)

The central characterising feature of improvisation is thus generally considered to be its spontaneity: the musician creates "on the spur of the moment". On the basis of this difference, a fairly clear distinction is generally made between the
creative processes involved in composition in performance and composition in notation (the latter usually simply referred to as "composition"). But what does "spontaneous performance" really mean? The ultimate in musical spontaneity is probably that heard in so-called "free improvisation" in western avant-garde music. However, even the "freest" of improvisations is governed by the rules of creativity (stated or unstated) within a particular musical style or genre. As the definition above states, "... to some extent every improvisation rests upon a series of conventions or implicit rules...". Improvisations must respect the boundaries of a musical system and conform to certain conventions in order for the music to communicate to an audience:

... nothing the improvising artist does is ever completely new. The freedom of the good improvising musician lies in the recognition of the demands of the idiom ... he is manipulating material he has received through his prolonged immersion in the idiom, just as the speaker does in his speaking, to the point where it is part of his very nature. (Small 1984:4)

Indeed, Small suggests that this is inevitable given that human cognitive processes work against,

... totally free improvisation; the human mind is an inveterate pattern maker, and all musicians bring their habitual patterns of thought and actions with them when they start to play. (ibid.:5)

Thus, creativity in performance is partly determined by conventional formulae and spatio-motor patterns built up over many years of performing. Prévost similarly acknowledges both the cultural and the cognitive limits to creativity:

There is always a cultural backcloth to reflect and forge human responses and aspirations ... habits and thereby conventions attend each and every performance - even of "free" improvisation - and habit becomes idiom, perhaps as a consequence of the insatiable pattern-making propensity of the human mind. (1984b:11)

These observations are particularly interesting coming as they do from musicians involved in avant-garde exploratory improvisation, perhaps the "freest" of all musical performance genres. "There are ... no meanings without rules, even if the
rules are not formulated consciously ...", claims Small (1984:2), since a shared understanding is necessary for any musical communication.

Whilst few societies have an equivalent to the term "improvisation", it has frequently been used by ethnomusicologists (and others) to refer to musical traditions in which there is a significant creative input on the part of the performing musician. Sorrell reports that the North Indian musician Ram Narayan initially found the idea of improvisation totally alien to his understanding of musical performance since he associated the term with the deliberate attempt to transgress tradition with unconventional experiments like "... putting alcohol or butter in tea" (1980:113). For him, such a term implied an underestimation of the many years of discipline involved in acquiring the knowledge necessary to perform the classical music correctly. When it was suggested to Narayan that improvisation could take place within strict boundaries, he became more willing to accede to the use of the term. According to Sorrell:

What improvisation there is takes place within the narrow limitations of a strict discipline ... the narrower the limits the sharper the focus, and the really good musician is one who can find the greatest freedom within the narrowest limits ... (ibid.:2)

Daniélou expresses similar ideas, also with reference to North Indian music:

Improvised structures are never expressions of complete freedom or a result of chance. They follow very strict rules of association ... (1975:16)

In their study of the improvisation of Lebanese musician Jihad Racy, Nettl and Riddle observe that,

... there is no improvisatory system that does not have some canon of rules and patterns, articulated or not, as its basis. (1973:13)

Racy himself however was surprised by "... the degree to which his performances followed certain patterns." (ibid.:13), showing that the perceptions of the musician may differ from that of the ethnomusicologist and the "objective" evidence of musical analysis, a point which will be discussed further in Chapter Three.
Most writings on improvisation, therefore, stress that musicians work from a knowledge base which is acquired over many years. A particular piece may be based on an explicit model, such as a chord sequence or a melody (such as in jazz), or on a "model-repertoire" (such as the Persian *radif*), and the use of such models as a basis for improvisation will be discussed below. However, even in the absence of such a model, improvisations are always partly based upon past experience:

... the popular conception of improvisation as "performance without previous preparation" is fundamentally misleading. There is, in fact, a lifetime of preparation and knowledge behind every idea that an improviser performs. (Berliner 1994:17)

Moving outside the realm of music, similar principles would seem to be at work:

... not even the greatest artist can think in a vacuum. Each great artist puts an individual stamp on what he or she produces, and the greater the artist, the more individual the stamp. This individual stamp, however, is put on material that has come from the artist's experience and is basically a modification of that experience ... (110) ... innovation in art is firmly grounded in earlier work, both that of other artists and of the artist in question ... (Weisberg 1986:136)

Possible parallels between the situation of the improvising musician and that of the chess player are suggested by the following:

How does the master (chess player) know which moves to consider? It appears that through years of study and play masters develop a greatly detailed visual memory of chess positions. They use this knowledge to analyse the position before them and it determines which moves are worth considering. This knowledge is again used to determine how these possible moves must be modified to respond to the specific situation at hand, which seldom matches precisely any situation the master has studied before. (ibid.:12-13)

This corresponds closely to the situation of the creative musician, for whom, however, the aural and sensori-motor memories are more important than the visual memory (although the latter might play a greater role in the creativity of
the composer using music notation).

Thus, whilst improvisation is defined largely through the creative freedom of the performer, this creativity is always within understood limits. Even the supposedly "free" elements of music are heavily mediated by past musical experience, as well as by factors such as cultural, musical, and personal conventions, instrument morphology\(^3\), and the performance situation, all of which interact and shape the creative processes at the time of improvisation. It would seem that in all musics, performers accumulate a body of knowledge over time, and that this forms the basis for the creation of new pieces in performance. This information might be learnt from a teacher or during informal listening, perhaps in the form of abstract musical materials (such as scalar patterns or characteristic formulae) or as complete pieces of music which embody the rules of musical creation.

If this is indeed the case, and the improviser is a musician who creates on the basis of learnt material, the conventions of a particular music system, and also perhaps a specific musical framework, then one might ask in what ways this differs from the situation of the composer using notation? Any human activity is a complex mixture of the fixed and the variable: of elements which recur with every instance of that activity (and which perhaps define it) and elements which vary from one person to another or from one occasion to the next and which make each act unique at that point in time. This is true both of activities such as speech as of those which require specialised musical training, such as composing and performing. Moreover, there may be aspects of a person's speech, for example, which are idiosyncratic of him/her, whilst other aspects may be shared with members of his/her family or cultural subgroup. There thus exist levels of features which are shared universally or with certain other people or which are unique to oneself and or even to a particular act taking place in a particular time and place. The inherently dynamic nature of all human experience, including music, is thus a fusion of the stable and the variable, and indeed it is this very fusion which is at the source of the dynamic processes:

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\(^3\) Whilst "morphology" is defined as "the study of the forms of things" in the Oxford Encyclopedic English Dictionary (ed. Hawkins and Allen 1991:944), this word is also commonly used by organologists when referring to the form or structure of a musical instrument itself. As such, the terms "structure" and "morphology" are used more or less interchangeably in this study when referring to the physical constitution of a musical instrument.
All encounters between human beings involve a mixture of spontaneity, on the one hand, and formality and premeditation on the other ... spontaneity is always mediated through pre-existing elements, the agreed common language or idiom of speech and gesture, through which the encounter has to take place if any meaning at all is to be generated. (Small 1984:2)

Koestler uses the terms "code" and "matrix" to refer to these two aspects of human experience:

The exercise of a skill is always under the dual control (a) of a fixed code of rules (which may be innate or acquired by learning) and (b) of a flexible strategy, guided by environmental pointers - the "lie of the land". (1964:38)

The apparently simple idea that all human activity is a mixture of the stable and the variable has far-reaching implications for the study of musical creativity. It has been argued that there is no such thing as totally "free" improvisation. At the other extreme, no piece of music can be completely pre-determined since no two performances of a piece will ever be identical (at least where human beings are involved as performers) due to the many variable factors which are at work in the performance process. In various publications (1974c, 1983, 1987, with Foltin 1972) Nettl has suggested a continuum stretching between these two hypothetical extremes, all music existing at some point along this continuum. Thus, all music is a mixture of the pre-determined - be this a traditional (aural) repertoire or a pre-composed (notated) score - and the creative input of the performer, which is mediated by factors such as the musician's past musical experience, the performance situation (audience reaction, etc.), instrument morphology, and socio-cultural expectations, among others.

If one follows this line of argument, then the use of the terms "composition" and "improvisation" to refer to essentially different processes becomes problematic: what criteria should be used to determine whether a particular piece of music lies towards the predominantly "composed" or the predominantly "improvised" section of the continuum? Judging the relationship between a performance and what may be an elusive underlying model or framework is often difficult. Moreover, a particular genre or music may comprise a range of activity which is not confined
to one part of the continuum. Thus, drawing clear-cut boundaries between musics which are predominantly "composed" and those which are predominantly "improvised", as is often done, ignores the crucial point that some degree of "creativity" or "improvisation" is present in all music-making. If the composer is indeed "... one who innovates ... within the framework of some musical style or styles ..." (Nash 1961:82), then it can be argued that s/he is as much an "improviser" (on paper or in the mind) as the improvising musician is a "composer", since both create within the rules and norms of the musical system, drawing upon past musical experiences and also perhaps using an acknowledged "model" or "framework". Thus, all improvisation involves elements of composition, and vice versa.

Moreover, the same applies to the performing musician working from notation, which s/he re-creates on the basis of social convention, his/her past experiences, and personal taste and feelings:

European musicians, musicologists, and the general public have distinguished three types of individuals: composers, performers, and listeners ... In the Western world composers alone are supposed to create; performers, to re-create. But in direct proportion to expertness, performers create "what is between or outside of the notes"; and in direct proportion to their recognition of the potentialities of the continuity and variance of a tradition, composers re-create it. In the non-Western world, within specifications of raga, maqam, pathet, and the like, creativity is mostly or entirely in performance, the composer, as a separate individual, being often as not nonexistent or merely a name in the annals of the tradition. (Seeger 1977:153-4)

Berliner discusses the "Eternal Cycle" between improvisation and precomposition in jazz (op.cit.:221), between ideas which are generated in performance and those which form part of the musician's "store" of ideas:

Characteristically, improvisation perpetually shifts between precomposed musical ideas and those conceived in the moment ... this cyclical process of generation, application, and renewal occurs at every level of music making ... (ibid.:495)
All music is thus a combination of varying degrees of traditional or pre-determined elements on the one hand, and spontaneous elements on the other, and the distinction between "creation" and "re-creation" becomes blurred - in a sense, all creation is re-creation. However, in practice the situation is clearly more complex than this. Between the two extremes of the "spontaneous" elements (the creativity of the musician) and the "pre-determined" elements, other patterns emerge, such as individual idiosyncrasies which musicians may bring to improvisation or composition. Indeed, these may be aspects of the music which whilst originally spontaneous, have in the course of time become part of a musician's store of formulaic patterns. There may also be patterns which have been prepared beforehand: created by the performer, but not on the spur of the moment. Moreover, for the performing improviser, creativity may be partly determined by particular ways of moving on an instrument.

1.3.2 Improvisation and Composition Compared

Perhaps one of the most important differences between "written" and "performed" composition is the time factor involved. Since the improviser is required to create in a specified time-space before an audience, there is little opportunity for reflection or reworking of ideas as there is for the composer using notation:

The composer rejects possible solutions until he finds one which seems to be the best for his purposes. The improviser must accept the first solution that comes to hand. In both cases the originator must have a repertoire of patterns and things to do with them that he can call up at will; but in the case of improvisation the crucial factor is the speed at which the stream of invention can be sustained ... In composition, fluency becomes less important; but it is much more important to keep long-term structural goals in sight, and to unify present material with what has gone before. (Sloboda 1985:149)

Yet it might be argued that whilst there is little time to refine ideas in the performance situation, many improvising musicians do rework ideas over a longer time-scale, developing ideas from one performance to the next. Indeed, it is just as possible for a composer using notation to create in an improvisational manner (see discussion below) as for an "improviser" to rework the same material over
many years of performing.

The fact that improvisation involves the act of creativity in front of an audience implies a certain element of risk in comparison with composition. Indeed, it is partly this which makes improvisation so exciting. In the context of jazz improvisation, Kernfeld describes this as,

... the danger of loss of control ... The element of risk in improvisation is the source of great vitality in jazz ... (1988:562)

However, he also points out that not all improvisers take risks all the time. Berliner describes the various musical strategies - generally known as "saves" - which jazz musicians use when such "risk-taking" does not go as anticipated (1994:210-216).

In addition, the creation of music in performance allows a quality of interaction between improviser and audience which is simply not possible for a composer, and the audience thus plays an important role in the ongoing dynamic performance process, although the degree of audience "input" will vary from one music, performance situation, or performer, to another. However, whilst it is true that composers are less directly in contact with their audience, they may interact with listeners in a slightly different manner, assessing audience reception and appraisal from one composition to the next, and even from one working of a composition to the next. Even so, it is easier for the composer removed from the performance situation to create in isolation from the expectations of an audience, whereas for an improvising musician the audience plays an active role in the creative process. Moreover, if the musician is playing as part of a group, the interaction with other musicians is an important factor in the improvisational process. Whilst composers can and do interact with performing musicians (as they do with audiences) and perhaps other composers, there is less immediacy to the interaction than in the case of the improvising musician. Of course, the interaction between improvising musicians can be both enriching and inhibiting, depending on the musicians and the dynamics of the particular occasion.

Another important difference between creativity in performance and creativity in
writing is that a notated piece of music requires further creative acts in order for it to be experienced as sound and behaviour. Of course, this is a debateable issue, a great deal of musicological work resting on the assumption that written scores have a musical existence outside of performance. The tradition of studying music primarily from the written score, divorced from any specific interpretation of the score, is partly rooted in the absence of sound recording prior to the early years of this century. However, even today when recordings and live experiences of performances are widely available, the idea of the score as "the music" is still so deeply embedded within musicology that many still focus on the score, regarding it as the "norm" (since it embodies the "true intentions" of the composer), rather than studying the rich diversity of individual interpretations and "meanings" which together comprise a piece of music:

... the musical work is thought of as having an existence which is independent of, and indeed transcends, any conceivable performance of it. The act of composition takes place solely to bring the musical work into existence, while the act of performance is merely a presentation of that work by a performer ... whose function, it seems, is primarily to reveal the intentions of its creator. (Small 1984:2)

It is possible that this approach also derives from the fact that the act of written composition results in a product, something which has somewhat detracted the attention of musicologists from creative processes. Clearly, for ethnomusicologists, the situation is rather different, since there is often no score to work from, and thus before the advent of sound recording, no "product". It can be argued that the "norm" of any piece of music (in all musical traditions) is the knowledge that each individual has of that piece, comprising the many different interpretations which s/he may have heard of it, this "ideal" version changing over time as the individual hears further interpretations of the piece:

There are ideal versions of art forms as well as real versions. The ideal version of any art form is obviously not the performance, but the transcendent, abstract idea of all performances of a particular item where an art form exactly repeats itself, or, in the case of art forms based on the concept of variance, that body of transcendent, abstract ideas about how any particular variation or improvisation ought to proceed. This concept would include such things as "Beethoven's fifth symphony" ... "Tchaikovsky's Nutcracker Suite".
These are not real items; they are ways of talking about the sum total of all the performances of an item, plus, if it exists, the score ... (McLeod, in ed. Herndon and Brunyate 1976:2-3)

Thus, it might be argued that the existence of a composed piece lies in each and every unique performance of it, and that the creating composer always requires the mediation of the performing musician:

"In a sense ... each performance is "an" original, if not "the" original ... our concept of "the original", of "the song", simply makes no sense in oral tradition" [quoting from Lord 1960:101] ... each performance is a unique and original creation with its own validity. (Finnegan 1977:65)

It should be noted that whilst Lord is referring to oral traditions, the above quotation could be applied to all musics, regardless of whether notation is used.

Since the improvising musician creates at the instrument (or with the voice), creativity in performance may be shaped by sensori-motor factors as well as by auditory factors. Whilst sensori-motor factors may also play a role in written composition, particularly as instrument-derived musical patterns become idiomatic of a musical style or of the style of a particular composer, they are unlikely to be as evident. On the other hand, auditory factors are primary in the case of composers using notation, and the added dimension of the visual score and the ways in which notation can "shape" creativity should also be considered, the latter clearly not being significant for the improvising musician. The question of sensori-motor patterns and their basis in the interaction between musician and instrument will be discussed further in Section 1.4.3.

1.3.3 The Role of Notation

The issue of notation is of central importance here: not only has the presence (or absence) of notation often been the criterion by which the degree of creativity in performance has been judged, but furthermore it has largely been the absence of musical notation in many non-western musical traditions that has led to the use of the term "improvisation". In western music, the term "improvisation" seems to
have emerged as a consequence of the division between the roles of composer and performer, a division which was itself directly related to the development of notation and the ability of the notational system to record the musician's thoughts for later rendition by himself (and by others).

However, whilst the absence of notation (particularly in the performance context) in many musical traditions has often been taken as an indication of greater freedom on the part of the musician, this is clearly not necessarily the case. Musicians often study for many years in order to memorise an oral repertoire precisely, this repertoire effectively functioning in a similar way to a "pre-composed" (notated) musical text. Thus, it is often difficult to judge the degree to which any piece of music is pre-composed or pre-determined (by the performer or by someone else) and the degree to which it is created in the actual performance situation, without detailed knowledge of the musical repertoire from which a musician works.

Nettl considers that "... the role of notation in the process of composition is sometimes misunderstood and overestimated." (1983:29), citing examples of western composers who created primarily in their minds or at an instrument and only recorded the music on paper after it had been fully worked out. Both Nettl (1974c:10-11) and During (1987b:35) have pointed out that whilst on the one hand, composers such as Beethoven continually reworked material, sometimes over a period of years (and his sketchbooks are witness to this laborious process), on the other:

The fact that Schubert wrote down certain of his works rapidly ... without working and reworking them very much, could lead us to regard his musical thinking as basically improvisatory. (Nettl op. cit.: 10-11)

Similarly, improvising musicians may also vary in the degree to which their music is created in the actual performance situation or based directly on prepared passages. It might be suggested therefore that a meaningful distinction can also be drawn between music which is worked out over a period of time and that which is "... basically improvisatory", and that both of these can take place in performance or in writing. The complex relationship between the latter two
"states" of music is clear: there are, for example, numerous written records of improvisations (such as those of Franz Liszt) which once "fixed" on the written page have come to be regarded in much the same way as compositions which were originally notated. Moreover, with the advent of sound recording, improvisations can now be recorded (in the same way as those of Liszt, but as sound rather than being transferred to the medium of notation), studied, and re-interpreted in the same way as a written composition enshrined in notation. Thus, During (1987b:34) gives the example of the renowned Turkish musician Çemil Bey, whose improvised taqsim recordings dating from around 1905 have become regarded as exemplary models of the music, and in effect function in much the same way as written compositions. Similarly, students of jazz study the improvisations of prominent musicians, using both recordings and published transcriptions (see, for example, Goldsen 1978, which comprises transcriptions of improvisations by Charlie Parker from the 1940s and early 1950s), or indeed by making their own transcriptions. The ways in which these original improvisations are used as starting points for further creativity in performance are discussed at length by Berliner (1994:97-105).

1.3.4 Improvisation, Variation, or Interpretation?

The preceding discussion has explored the relationship between improvisation and composition, activities which are often contrasted with the less "creative" activity of non-improvised performance, either from a pre-composed score or the near-exact rendition of a memorised piece in the oral tradition. However, given that all performance demands some level of creativity on the basis of an existing model or piece of music, what is the exact nature of the relationship between improvisation and "non-improvised" performance?

This area of discussion is characterised by two main lines of thought. On the one hand, it is argued that:

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4 This forms part of a wider debate within western music regarding the extent to which composition should be a purely mental exercise. Bach, for example, whilst well-known for his extraordinary prowess as an improviser, and many of whose compositions were originally improvisations, nevertheless disapproved of his pupils using the keyboard to explore compositional ideas, referring to them as "keyboard cavaliers" (Henson 1977:241).
To some extent every performance involves elements of improvisation, though its degree varies according to period and place ... (ed. Sadie 1980:32, quoted above)

Thus, in the performance of J.S. Bach's *Das Wohltemperirte Klavier*, András Schiff adds in ornaments which he describes as "... improvisations on the spur of the moment, according to the style and the composer ... consciously and carefully studied beforehand." (quoted in Kertész Wilkinson 1989:10). Thus, different performances of the same piece of music might be regarded as "re-creations" of that piece, just as improvisations are re-creations of musical tradition (however specified), although the degree of re-creation in the latter case is generally greater. On the other hand, a number of writers have argued that the creativity involved in performing a pre-composed score is qualitatively different from that involved in interpreting a less well-defined model or framework in improvisation. During, for example, draws a distinction between interpretation ("exécution") and improvisation. Whilst the former only requires the ability to play music, the latter requires "... the assimilation and integration of the very principles of the music" (1987b:36).5 However, it could be argued that through playing, musicians do generally learn such principles, although not necessarily at the level of awareness. Moreover, During does not clarify where the line between these two should be drawn - where does "interpretation" end and "improvisation" begin? - and the discussion returns to a similar debate to that of the composition-improvisation continuum presented above. Whilst there are important differences between the interpretation of a score or a memorised piece and creative improvisation, it might be suggested that these are differences of degree rather than of essence.

Furthermore (and returning to the discussion of improvisation), During makes qualitative distinctions between two "levels" of improvisation, which he refers to as "strategic improvisation" and "creative improvisation" (1987a:23). In the first, the musician chooses between alternative possibilities without creating any new musical elements which is the prerogative of the musician in the second type of improvisation. Sági and Vitányi make a similar distinction between "constructive creative ability" and "generative composing" (the latter term derived from

5 All direct quotations from During 1984a, 1987a, 1987b, and 1987c have been translated from the French by the present author.
linguistics):

We speak about constructive creative ability in music where the composer gives a final form to an original opus by means of conscious work, employing and (partly) reshaping the elements and rules known to him. By generative composing, we mean a largely unconscious or intuitive variational application of the elements and rules which does not result in a final opus of unchangeable form but merely in a new variant. (1988:180)

This brings to mind the approach of the early folklorists (mentioned earlier) and the distinctions which they made between the conscious workings of the art musician using notation to create something qualitatively different from the "folk" musician, who is dependent on subliminal, largely variational, procedures. Clearly, elements of conscious and subconscious working are present in all musical creation, but assessing their relative degrees is problematic.

Central to the ideas of both During and Sági and Vitányi is an attempt to differentiate between creativity which produces something totally "new" and that which simply varies an existing piece of music. However, as stated earlier, judging the point at which "variation/interpretation" ends and the creation of something "new" begins is difficult. As Nettl (1974c:7-10) points out, where "objective" musicological analysis may show considerable variation to have taken place, such variation may not be perceived as significant within the tradition - and vice versa. According to During:

In principle, one can only talk of improvisation when the musician himself has the impression of creating a new form, even though he may not be fully aware of this. (1987b:37)

This demonstrates the complexity of the issues well: not only is it unclear how a musician can have an impression of something of which he is not fully aware, but moreover the statement seems to call into question During's own categories outlined above, particularly that of "strategic improvisation". Clearly, the extent to which something must be changed before it is perceived as "new" or "different" will vary from one musician to another, and even from one musician (or listener) to another, and will largely depend upon criteria and concepts within the musical
tradition in question.

1.3.5 Musical Models

The improviser, let us hypothize, always has something given to work from - certain things that are at the base of the performance, that he uses as the ground on which he builds. We may call it his model. In some cultures specific theoretical terms are used to designate the model ... (Nettl 1974c:11)

It has been suggested that all creativity takes place within the context of some kind of organising structure, the nature of which varies from one music to another. This might take the form of a pre-composed notated piece, a memorised repertoire which becomes the basis for creativity, a chord sequence, or simply the conventions of a musical system and certain ways of moving on an instrument. There would seem to be a close relationship between the specificity of an underlying structure, referred to by Nettl as the "density" of a model, and the degree of creativity involved in interpreting it:

In comparing various types of models, we find that those of jazz are relatively dense, those of Persian music, of medium density, and those of an Arabic *taqsim* or an Indian *alap*, relatively lacking in density. Figured bass, and Baroque music in which a soloist improvises ornamentation, are perhaps the densest models of all ... It seems likely that a performer of improvisation using a dense model tends to vary less from performance to performance than one whose model lacks density ... (ibid.:13)

Of course, improvisers are not the only musicians to use models, composers and non-improvising performers do so as well, indeed they may even use the same models as improvising musicians. If the concept of "improvisation" is extended to include all performance in which the performer plays a creative role (to whatever degree), then it would seem that the most dense models are pre-composed pieces (notated or otherwise) which demand a high degree of fidelity to the original text (perhaps through the demands of ensemble playing). Returning to the idea of the continuum suggested earlier, one end is represented by such pre-composed pieces which may form the basis for performance, as well
as for further composition or improvisation, whilst at the other end are the least dense models, essentially the musical and individual conventions which underlie "free" improvisation. Between these two extremes are various types of model with varying degrees of specificity.

Nettl also discusses the "audibility" of models, posing a very basic question: "... to what extent does the model comprise the material that is actually heard by the student or performer?" (ibid.:15). Audibility is related to (but not necessarily correlated with) density, and might also be viewed as a continuum, with audibility varying from one music to another:

In some systems it [the model] is actual music that may also be performed without improvisation, in some it is basic sound material that the musician learns but does not execute in a true performance, and in still others it is largely theoretical subject matter, consisting of verbal instructions and exercises. (ibid.:16)

Moreover, the same piece of music can function in different ways. For example, a melody can become the basis for jazz improvisation and thus lie towards the more "audible" end of the continuum. However, the same melody when learnt in conjunction with other similar melodies might be used as the basis for creativity by a composer who "extracts" the important elements of the music in order to build up his/her own compositions. In the latter case, the "model" is less audible. Models also vary in the degree to which they are acknowledged or discussed and may in some cases lie so far towards the "less audible" end of the continuum that they can only be identified by comparing different versions of the same piece of music, or may even not be identifiable as such (as in the case, perhaps, of "free improvisation").

Lortat-Jacob (1987b) explores the concept of "model" and suggests four different types used as the basis for improvisation in different musics. The first of these, "modèle-composition", is that in which a fairly fixed piece (such as a pre-composed piece or even a recording of an improvisation) forms the basis of creativity in performance. In the second type of model, "modèle-formule/modèle forme", a less well-defined model, such as a modal or metric structure underlies creative improvisation. "Modèle composite", Lortat-Jacob's third category is that
in which the improvisation is based on the combination of a number of different models, and finally the "modèle donné ou à découvrir" is either a model which is presented in performance, perhaps as the most basic part in a piece of music in several parts or else a model which can only be extracted analytically by comparing different versions of the same piece (1987b:46-9).

Whilst the terms "model" and "framework" are often used interchangeably when discussing musical material which forms the basis for creativity, there is clearly a subtle and important difference between the two. Whilst "model" implies an exemplary version(s) of a piece which is learnt first before being used as a basis for creativity, "framework" implies a skeletal structure which is not in itself a piece of music, but which exists within a piece, without necessarily being extracted and discussed by musicians. Thus, "model" implies greater density and audibility than "framework". This will be discussed further in Chapter Two.

1.3.6 Tradition and the Individual

The preceding discussion has explored terminology which is fundamental to this study. To the extent that such terminology rests uneasily upon assumptions which are often unquestioned, its use is problematic. However, once the terms of reference are made explicit, it may represent a useful tool. The use of terms such as "improvisation" and "composition" in the following chapters should thus be understood as not representing mutually exclusive categories - "improvisation" is composition in performance as much as "composition" is improvisation on paper - but the degree of creativity in relation to a pre-composed piece (notated or otherwise), or a musical model, or "tradition", is variable. Whilst "improvisation" implies creative composition in performance within the limits of a specified time and musical framework and with the interaction of the audience, "composition" refers to musical creativity which may also be formulated in the mind or at an instrument, but which implies time to refine ideas which often become enshrined on the written page.

Every act of musical creation draws from a tradition and feeds back into that tradition. Thus, whilst every improvisation or composition is a re-creation of
traditional models, at the same time tradition itself represents the accumulation of such re-creations by individual musicians over many generations:

A tradition has no reality apart from the behavior that manifests it. Both creation and re-creation are essential features of it. Without creation and its incessant re-creation, there never could have been a tradition ... (Seeger 1977:154)

As such, the individual plays a role in forming tradition (or the "unconscious collective" [Brailoiu 1984:56]) at the same time as the tradition forms the individual (Anthony Seeger 1987:494), and no creation can be totally outside of a musical tradition because it is inevitably formed by it. Thus, improvisation, composition, and non-improvised performance can be regarded as making use of the same basic process: the re-creation of tradition by an individual musician, whether in performance or in notation, that re-creation subsequently becoming part of the tradition from which other musicians can draw. Indeed, one can perhaps use the idea of "intertextuality" (from the study of literature) to talk about "intermusicality": the "interconnectedness" of every piece of music to others through a communal tradition of shared ideas.

Moreover, a tradition cannot renew itself through creation and re-creation without the aural-oral experiences of its members. The work of Ruth Finnegan on oral poetry lends interesting insights to the question of creativity in music,

... the oral poet makes use of traditional patterns to express his individual and original insights. As another scholar has put it, "all is traditional on the generative level, all unique on the level of performance" (Nagler 1967, p.311), and the old polarity between "tradition" and "originality" no longer means direct contradiction. (1977:69)

On the one hand every piece of music is traditional in the sense of being based on the past to some extent; on the other hand, every piece is unique. Indeed, music and poetry are not alone in this respect:

The ancient Greek Philosopher Heraclitus believed that the only constant aspect of the world was that everything constantly changed. He summarized this in the well-known saying that one
can never step into the same river twice. This is true because the river is constantly changing.

By the same token, one could say that no two experiences are ever identical. Even if one does "the same thing" more than once, on close examination the experiences will be different. As one picks up a pencil in order to start writing, for example, the position of one's hand, the pencil, and the paper all change from one time to the next. (Weisberg 1986:147)

Perhaps the most important point to emerge from the preceding discussion is that not only does all creativity take place within tradition, and not only is tradition a complex accumulation of human creativity over time, but that creativity and tradition are in fact two manifestations of the same phenomenon - inextricably linked - and one could not exist without the other:

... through a process of continual re-creation every piece is at once contemporary and the accumulative result of ageless tradition. (Becker 1972:33)

1.4 Generative Processes

If musical creativity is viewed as a manifestation of the general human urge to create, then it might be possible to gain insights into the creative processes in music by exploring those in other areas of human activity. Indeed, as ethnomusicologists have become increasingly interested in generative processes, they have drawn upon ideas from a range of disciplines, including linguistics, oral literature, and cognitive psychology. This section will consider some of these ideas and the ways in which they might contribute to an enriched understanding of creative processes in music. An exploration of the possible potential of using ideas from generative linguistics will be followed by a discussion of the formulaic nature of composition, developed in the context of oral poetry by Milman Parry and Albert Lord, and the possible relevance of this to musical composition. There will also be discussion of the ways in which body movement in relation to musical instrument structure can shape musical patterns, as well as an examination of decision-making processes in music.
1.4.1 Linguistic Creativity

Comparisons between music and spoken language date back at least to the writings of the ancient Greeks, such analogies being based on fairly evident similarities: in both music and speech, sound is used symbolically by humans as a means of communication. The subject of communication, however, as it relates to music is clearly a complex one, and whilst the idea of music as a "universal language" has long been part of western thought, it does raise important questions concerning what music communicates, how, and to whom. The relationship between music and language, and the debate surrounding music as a language, has been an area of intense interest to a wide range of musicians and musicologists (and others), particularly since the 1970s (see, for example, Cooke (1959), Bernstein (1976), Henson (1977), Shepherd (1977), Keiller (1978), Gardner (1983), Sloboda (1985, 1990), Rosner and Meyer (1986), Clarke (1989), Barrett (1990), Burrows (1990), Cook (1990), Garfias (1990), Dunbar-Hall (1991), Levman (1992), Monelle (1992), Storr (1992), Adorno (1993), Aiello (1994), and Terry (1994)). Moreover, there has been a long-standing practice within musicology of using linguistic models as a basis on which to explain music, and Powers (1980a) reviews the musicological application of such models.

Within ethnomusicology, the earliest use of ideas and models from linguistics tended to focus on comparison at the level of structure. Thus, Nettl (1958), for example, identifies structural similarities between music and language, and suggests various ways in which the techniques of linguistics might prove useful for musical transcription and analysis (for example, by isolating the "morphemes" and "allophones" of a music; the reader is also referred to Bright (1963) for a similar approach). More recently, a number of ethnomusicologists have been attracted to the ideas of generative linguistics. Since another shared facet between music and language - perhaps the most important - is that creativity plays a significant role in both, the most meaningful level of comparison might be in the underlying processes rather than at the level of structure (that is, the linguistic/musical products). Moreover, the idea of underlying rules has also been influential:

... if you are making music, you are making one of the most highly patterned forms of human behaviour. And there are rules. We all know there are rules, because there have got to be rules, just as
there has got to be grammar in language. (McLeod, in ed. Herndon and Brunyate 1976:214)

In a sense, generative linguists from the 1960s onwards were trying to answer some of the same fundamental questions about language that ethnomusicologists subsequently started to address for music from the early 1970s, questions relating to creative processes and the relationship between those processes and the resulting linguistic (or musical) products. Thus, scholars such as Boilès (1967), Blacking (1971a, 1973, and 1984), Seeger (1969), Chenoweth and Bee (1971), Durbin (1971), Nattiez (1973), Becker and Becker (1979 and 1983), Prociuk (1981), Pelinski (1984), Kippen (1985, 1988a and 1988b), and Hughes (1988), amongst others, have applied ideas and models derived from or influenced by generative linguistics to the analysis of music (see also Roads (1979) and Lerdahl and Jackendorff (1981) for more general considerations). A brief review of some of these publications will be presented here, and the reader is also referred to Feld (1974) and Hughes (1991) for further discussion of the use of linguistic models within ethnomusicology.

There is a vast literature on the subject of generative linguistics, but for the purposes of the present study the basic principles as originally formulated by Chomsky (1957, 1965) will be briefly outlined. Generative linguists essentially seek to explain the processes by which native speakers of language are able to produce an infinite number of unique sentences from a finite vocabulary and grammar, sentences which are both grammatically correct and which can be understood by other native speakers, even though they may never have been previously uttered by the speaker or heard by listeners. Chomsky claimed that the use and comprehension of language demands a developed inherent creative faculty, rejecting the explanations of behaviourists such as Skinner (1957) who maintained that language is learnt by processes of conditioned observation and imitation with little creative input:

Chomsky started out with the basic assumption that anybody who acquires a language is not just learning an accumulation of random utterances but a set of "rules" or underlying principles for forming

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speech patterns ... It is these "rules" which enable a speaker to produce an indefinite number of novel utterances, rather than straight repetitions of old ones. (Aitchison 1989:92-3)

In learning to speak, a child acquires both a vocabulary of words and a set of syntactic rules which can be applied to words in order to convey certain semantic meanings. These grammatical rules are not verbalised, but are learnt subconsciously by native speakers and reapplied in different contexts. Aitchison discusses in detail the debate among linguists on these issues in addition to Chomsky's own revision of his earlier ideas. Whilst the influence of these ideas on the thinking of scholars outside linguistics has been profound, it is important to note that they are far from definitive, but represent part of an evolving process of trying to understand human language and the workings of the human mind.

A number of writers have speculated that similar processes may be at work in musical creativity - that all musical systems (like languages) are based on a set of "rules" or "grammar" and a set of musical "ideas" (motifs, patterns, etc.) which are learnt by musicians in formal or informal situations. As in language, these internalised "rules" can be applied in different contexts and to different basic musical material to allow the continual creation of novel musical utterances. It is through this "grammar" that musicians learn the "rules" and the limits of creativity within a particular music, as well as information concerning where such rules can and cannot be applied. A number of ethnomusicologists, notably Blacking, have suggested that the "deep structure" of music comprises the knowledge of the musician and the processes which underlie the "surface structure" of the musical product. Blacking has stressed the importance of understanding the underlying processes as well as the products which have been the main focus of interest in the past (1967, 1970, and 1973).

However, the application of linguistic terminology such as "deep structure" and "surface structure" to music immediately brings into question the validity of the comparison at this level: the observation that "deep structure" in language is to do with meaning, whereas in music it can only be used in a very general sense, is well-founded. This is just one of the many complexities inherent in the language-music analogy, a number of which will be discussed below, followed by an overview of the work of several ethnomusicologists who have, nevertheless, felt
that some of the ideas of generative linguistics are of relevance to the study of music.\(^7\)

Whilst much of the music-language analogy in the ethnomusicological literature is based on the generative nature of everyday speech, "language" clearly represents a range of expression extending from poetry and literature to everyday usage (from the "formal" to the "informal"), and including written as well as spoken modes of expression. Powers makes this point as he compares the improvisations of Indian musicians with extempore oratorical discourse around a particular subject rather than language in general (1980a:42-3), and asks whether music should be regarded as a parallel to poetry, to ordinary conversation, or to some other linguistic form. Indeed, the comparison with poetry seems particularly apt, given that music perhaps shares more with poetry in terms of semantic and aesthetic considerations, than it does with everyday speech. Or, perhaps a similar formal-informal continuum exists for music, although its identification might prove more problematical that for language, because of the semantic factor. This clearly raises questions of comparability: is there a particular musical genre which might be compared with story-telling as opposed to another which is closer to poetic declamation? And might it be more appropriate to compare notated musics with written linguistic texts?

Moreover, Powers also argues that particular musics may differ in the degree to which they lend themselves to comparison with language, something which he refers to as the "linguisticity" of a music. For example:

\[ ... \text{the more any musical practice is subject to constraints of ensemble performance, the less easily amenable it will be to quasi-linguistic analysis. (ibid.:42)} \]

Thus, Powers maintains that the musics which are most suited to the application

\(^7\) Ethnomusicology is, of course, not the only discipline to draw upon ideas from linguistics. The anthropologist Lévi-Strauss, in particular, was concerned with the relationship between language and society and "... whether the different aspects of social life (including even art and religion) cannot only be studied by the methods of, and with the help of concepts similar to those employed in linguistics, but also whether they do not constitute phenomena whose inmost nature is the same as that of language": (1972:62). The reader is referred to Hawkes (1977:19-58) for further discussion of the influence of structural linguistics on anthropology.
of linguistic models are solo improvised traditions, particularly those of the Indian subcontinent and the Middle East.

Feld (1974) raises many pertinent questions in his thorough critique of the use of linguistic models in studying music. His main concerns are that the underlying assumption that music and language are sufficiently close to enable linguistic models to explain music has largely remained unquestioned, and in addition that ethnomusicologists have tended to use such models for reasons other than as a means of better understanding music. Whilst the latter point may have been true of earlier studies in which linguistic models were sometimes used for the sake of using models rather than from any inherent factor in the music itself, the more recent use of generative models in musical analysis have generally been clearly reasoned. Feld also expresses concern regarding an inherent weakness within linguistic grammars - their lack of context sensitivity - and more recent work within sociolinguistics has started to address this issue. Feld does, however, concede that linguistic theory may be useful in the study of music, particularly in seeking to explain the rules on which a particular music is based, exploring the boundaries of the acceptable in that music, and in understanding music as a form of human knowledge.

As discussed above, a number of ethnomusicologists (particularly since the 1970s) have attempted to identify the "rules" or "underlying grammar" of specific musics or musical genres (or pieces of music), one of the earliest such studies being a generative grammar for the music of the Awa people of New Guinea (Chenoweth and Bee 1971). An interesting collaboration between a linguist and an ethnomusicologist, Alton and Judith Becker (1979), resulted in a grammar for the Javanese musical genre called srepegan.8 The original motivation for this was a provocative comment made by a colleague, who claimed that the pieces which comprised this genre were:

... too irregular ever to be subsumed within a single analysis. (Becker and Becker 1979:2)

8 This article was reprinted in 1983 (in Asian Music) with a preceding discussion and reassessment of their grammar by Judith and Alton Becker, which was originally presented at a conference entitled "Linguistics and Musicology" at Princeton University in 1982. This issue of Asian Music also includes a critique of the Beckers' grammar by Marc Perlman.
The Beckers thus set about searching for the principles of "coherence" (1979:4) at work, by analysing the body of about 60 pieces which comprise the genre srepegan. Among the important questions which they were trying to answer were the following:

What makes a srepegan a srepegan? What constraints does it follow? Or, how can you tell a srepegan when you hear one?" (1979:4)

These questions, which are central to an understanding of musical creativity, are also closely related to matters of musical identity and diversity - the degree to which a musical structure can be varied before its identity changes. As discussed earlier, this threshold clearly varies from one musical tradition to another, and even from one genre to another within the same tradition. What has led a number of ethnomusicologists to attempt to devise generative grammars for music is a fascination with the way in which musicians apparently internalise rules which allow them to continually vary and re-create a piece, whilst retaining its identity.

The main criticism, expressed both by others and also by the Beckers themselves in subsequent publications, was the assumption that the grammar of srepegan which they devised was not simply one possible interpretation among many, but that it was an actual replication of the processes in the mind of the musician. There was also the implication that the Beckers' analysis was inherent in the music itself. There are two closely related problems here. Firstly, there is the question of the extent to which a musical or linguistic grammar derived from the analysis of existing sound structures can replicate the "internal grammar" in the mind of an individual generating musical or linguistic structures. Generative linguists are aware that they have been devising grammars which might explain a language, but which are essentially outside of that language and not inherent in it. In effect, devising a grammar is a form of analysis, and scholars thus bring culturally-conditioned modes of thinking to their analyses. Thus Herndon, whilst supporting the use of ideas derived from generative linguistics within ethnomusicology, cautions that:

I would not wish to suggest, as Chomsky (1965) was accused of doing, that ... the cognitive approach replicates the cognitive system
of one's informants. On the contrary, it involves the active intrusion of the ethnomusicologist, who states, to the best of his or her ability, what the variations and rules of occurrence are. The ethnomusicologist's model, then, is probably different from that of the informant. (1974:248-9).

By asking a proficient native musician, Sri Hastanto, to judge the pieces generated by his grammar, Hughes (1988) attempts to delve into Hastanto's musical conceptualisations. However, he stresses that the set of rules which he devised do not necessarily correspond with the kinds of rules that a native musician might consciously or unconsciously apply (if any, since Hughes, like the Beckers, is dealing with a small body of pieces which may be a closed, memorised repertoire). However, his subsequent refinement of the grammar using feedback from Hastanto effectively partly subsumes the model of the informant within that of the ethnomusicologist.

The second question raised by the Beckers' work is the extent to which native musicians (or speakers of language) are consciously aware of musical (or linguistic) grammars (and indeed whether some individuals may be more aware of these than others). The Beckers claimed that such:

Coherence systems, or grammars, are largely subliminal. A musician may not consciously be aware ... of the constraints he follows and those he violates (Becker and Becker 1979:32)

Hughes (1988) presents a grammar of the Javanese genre *gendhing lampah*, which includes the sub-genre *srepegan* which was the subject of the Beckers' study. Starting from the analysis of what is essentially a closed repertoire, he presents a "grammar" or set of rules (Base Rules, Contour Assignment Rules, Restriction Rules, Transformation Rules, and Derivation Rules) which could both account for the standard forms of the genre and be used to generate new pieces. A number of pieces generated in this way were tested by asking Hastanto to play them and offer comments as to how satisfactory he considered them to be. Hastanto was also asked to complete a piece, the results of which were assessed against what would have been expected from the generative rules. On some points Hastanto found the generated pieces to be unsatisfactory, although he could not always explain why, and some of the devised rules did not account for
how the musician completed the piece (and as Hughes explains, this information can be used to further refine the grammar). However, generally speaking, the grammar was able to account for all of the available pieces in the genre *gendhing lampah*, and to predict the material generated by Hastanto.

Hughes identifies certain aesthetic or structural considerations within the grammar which tend to restrict or encourage certain types of melodic movement. For example, melodies generally avoid the parallelism created by patterns such as⁹

\[
\begin{array}{cc}
\cdot & \cdot \\
5 & 3 \\
\cdot & \cdot \\
\end{array}
\begin{array}{cc}
\cdot & \cdot \\
5 & 3 \\
\cdot & \cdot \\
\end{array}
\]

whilst encouraging patterns such as,

\[
\begin{array}{cccc}
5 & 6 & 5 & 3 \\
\cdot & X & Y & Z \\
6 & 5 & 3 & 2 \\
\cdot & X & Y & Z \\
\end{array}
\]

which cut across the regularity of the duple pulse, introducing a temporary element of ambiguity between duple and triple pulse.

Other attempts to devise generative grammars for music include Kippen's research on North Indian *tabla* patterns (1985, 1987, 1988a, 1988b), in which the generated patterns were also tested with "native feedback". In the realm of western music, the collaboration of a musician and a linguist resulted in a comprehensive attempt to devise a generative grammar for tonal music (Lerdahl and Jackendorff 1983. See also Winograd 1968), and other studies have included a generative grammar for Swedish songs (Lindblom and Sundberg 1970). The computational grammar for jazz written by Johnson-Laird can generate rhythmic and melodic phrases (particularly bass lines), as well as chord sequences (1988, 1991), and similarly, the study by Steedman presents a generative grammar for jazz chord sequences (1984). Extending this work into the area of cognition,

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⁹ These examples each show two four-beat *gatras*, the numbers representing the pitches of the pentatonic scale in the particular genre analysed by Hughes. The letters are provided to demonstrate the parallelism in the music. Pitches omitted at the beginning and end of the first example (being irrelevant to the present discussion) are indicated by dots.
Lerdahl (1988) discusses the relationship between the "grammar" which may underlie a particular piece of music and the "grammar" by which listeners understand the piece.

Whilst the term "aesthetics" has acquired many culturally-bound meanings in the context of western art music, within ethnomusicology there is a growing awareness of its close connection with the rules and limits of the permissible in a music. Kippen discusses aesthetic factors within the "grammar" of North Indian tabla patterns, for example the integrity of a performance (1988a:167). Although such aesthetic rules may be difficult to identify and may only come from prolonged immersion in a musical tradition, as stated above, both Kippen (1985, 1987, 1988b) and Hughes (1988) have attempted to deal with this question in their research by obtaining "feedback" from musicians on pieces of music generated by their own devised generative grammars. This enabled them to reconsider the generating rules by taking account of the verbal and non-verbal responses of their native informants. However:

It would be easy to construct a grammar for qaida if the only two responses to computer-generated pieces were that a variation was either correct or incorrect. Significantly, there has frequently occurred another assessment where an informant says of a variation: "well, it's not exactly wrong, but I don't think it's very good!" (Kippen 1985:10)

Thus, whilst there are many thousands of possible tabla patterns, in practice musicians use a relatively small repertoire of patterns and formulae. Kippen also addresses the question of social context and the fact that particular patterns may be suitable for certain situations and not for others (1985:10-11). In the further refinement of musical (and linguistic) grammars, integrating aesthetic and contextual factors are clearly important developments. Moreover, acknowledging the significance of other meaningful aspects of musical (and linguistic) expression, such as the integrity of a performance (or linguistic statement), timbre, breadth of expression (or prosodic features), as well as motoric aspects of music (or language), which have hitherto been given little consideration, it may eventually be possible to incorporate these into such a grammar.

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10 A technique which is, incidentally, a typical procedure in language research.
The inherently interdisciplinary nature of ethnomusicology has clearly been a great strength, with scholars trained in and drawing ideas from diverse fields of human knowledge. Naturally, such ideas have become shaped in the terms of ethnomusicology itself. Thus, linguistically-derived concepts regarding underlying rules and innate creativity have appealed to ethnomusicologists, since such concepts resonate with ideas about music. However, in drawing upon such ideas, it is important to acknowledge the limits of the language-music analogy: there is clearly a crucial difference between borrowing ideas which may form the basis of a certain approach, and using specific models which perhaps force music into a linguistic mould for which it is unsuited. Whilst it has been argued that some attempts to devise formal grammars for music have tended towards the latter approach, this need not necessarily be the case. Although ideas about generative processes initially emerged within linguistics, music is no less rule-bound than language. Indeed, if the word "grammar" is taken in its most elemental meaning as a set of "rules", or even dispensed with altogether, it is possible to suggest the "rules" on which a certain (piece of) music is based without any necessary reference to language at all. It is the insights which such ideas can provide into the nature of musical creativity that are important. As Harwood observes:

... structural linguistics is not, in itself, an inappropriate model for understanding some domains of musical activity, merely because the original source of structuralist theory was language behaviour. The model's appropriateness or inappropriateness depends on whether it can help us to clarify, for ourselves, the dense detail of our ethnographic observation. (1987:509)

One of the most crucial differences between language and music, and which cautions against simplistic parallels, is that in the former, syntactic rules are bound by the factor of semantics: a sentence must make sense in the context in which it is stated. Even if it were possible to identify syntactic rules for music, the question of musical meaning is a particularly thorny issue. Furthermore, a number of writers have pointed to an important difference in the relationship between reception and production, between what Chomsky terms "competence" and "performance". Blacking, for example, questions the appropriateness of Chomsky's categories to music (1971b:21), as does Cook:
... most people know more words than they actually use, and can cope with sentences of greater syntactical complexity than anything they would themselves say or write. But this distinction is of a quite different order of significance from the parallel distinction in the case of music. If it were of the same order ... we would have to imagine that the average listener to a Beethoven sonata might hear in it certain chords or progressions which he was able to understand, but was not in the habit of using in his own compositions ... This drastic asymmetry between productional and receptive capacity ... does indeed show how remarkable it is, if most people cannot play music, that they can nevertheless derive the most profound satisfaction [and presumably "understanding"] from listening to it. (1990:73-4, parentheses added)

Clearly, an important question here would be the extent to which the fact that "Generally, most adults retain a severe production deficiency in music." (Sloboda 1985:19), is attributable to social (rather than biological) factors. In fact, Levman (1992) argues that in evolutionary terms, music production preceded that of speech, and Blacking follows a similar line of argument in his writings (see for example 1976a, 1987:22).

It would seem that in both music and language, the existing structures embody the rules for their own renewal, these rules being transmitted during learning and used to create novel linguistic or musical statements. Of course, the generative aspect of music and language, which is most relevant to the present study, is just one of a number of parallels which can be drawn between these two forms of human expression and communication. In the Persian musical tradition, not only is there an intimate relationship between music and poetry (as noted in later chapters), but also between music and the art of oratory (rajazkhāni). The latter relationship is discussed by During (1987c:138), and as will be mentioned in Chapter Six, it is interesting that some of the ways in which tension is built up and resolved in the solo melodic line would seem to parallel the shape of linguistic phrases found in oratorical discourse. Moreover, linguistic analogies are often made by musicians and non-musicians in talking about music. Thus, for example, the word jomleh (lit. "sentence") is used to refer to musical phrases, and aspects of musical expression are often discussed in linguistic terms. Persian music is, of course, not alone in this respect. Berliner, for example, makes numerous references to the use of linguistic terminology by jazz musicians, who
regularly talk about the "language of jazz", "musical sentences", "vocabulary", and "syntax" (1994, see for example pgs.492-3).

Whilst the music-language analogy is thus multi-faceted, in terms of the present study, it is possible that ideas from linguistics may contribute to a greater understanding of the creative improvisational processes in Persian classical music. Whilst the music is learnt through imitation, memorisation, and experiencing alternative versions of sections of the repertoire (see discussion in Chapter Two), the analyses of the following chapters indicate that the performance process is not one of simple reproduction of various permutations (as suggested in much of the literature, and following similar arguments to those put forward by behaviourists for language) but their creative abstraction. Thus, like the speaker of language, a musician can perform musical permutations which are both "grammatically" correct and at the same time novel. In this study, there is no attempt to propose a "grammar" or set of "rules" for Persian music as such (except briefly in the discussion of motivic patterns in Chapter Seven), mainly because of the complexities (and the questionable value) of such an enterprise in this music. However, ideas from linguistics which would seem to have relevance to music have been drawn upon in the course of the musical analyses (particularly in Chapters Six and Seven).

1.4.2 The Oral-Formulaic School

In 1960, Albert Lord published The Singer of Tales, a landmark in the field of oral literature and based on his own work and that of his teacher, Milman Parry. Using evidence from the study of Yugoslav epic singers and their use of "oral formulae", Lord presented novel ideas relating to the authorship and mode of composition and transmission used in the Homeric epics. The arguments surrounding his theories, which were both highly controversial and influential on the thinking of the time, are discussed in detail by Finnegan (1977). Despite certain limitations to his conclusions, many of the original ideas were exciting and far-reaching. An examination of some of the points which emerged regarding the use of formulae in creative situations may well provide insights into the music-making processes of Persian classical music.
According to Lord's theory, the performer of oral literature has a stock of learnt formulae which s/he incorporates into the performance:

The Poet had at his disposal this series of traditional patterns built up over the years (so there was something in the theory of multiple authorship), but he was not passively dominated by them: he used them to create his own poems as he performed them." (Finnegan 1977:60)

On the one hand, the stock of formulae allows rapid "composition in performance" to take place, and the performer is thus both composer and performer. On the other:

... rather than induce similar performances, the "formulaic style" because it avoids the necessity of exact memorisation gives the performer the opportunity to make each performance unique. (ibid.:65)

Lord thus regards the use of formulae as a device which renders the exact memorisation of long poetic texts unnecessary, and suggests that a high density of formulae in poetry provides evidence of (originally) oral composition and transmission (the conclusion that he reaches concerning the Iliad and the Odyssey).

As in many improvised musics, formulae play an important role in Persian classical music. These may be specific to certain sections of the repertoire, as well as being characteristic of particular instruments/voice or musicians. In the course of many years of playing and listening, a performer builds up a "stock" or repertoire of formulae, which may also form the basis on which new formulae are generated. Moreover, since music, unlike poetry, may involve the interaction between a musician and an instrument, these formulae may comprise sensori-motor patterns as well as aural patterns (see Section 1.4.3). Whilst Lord regards formulaic patterns as particularly characteristic of oral transmission, Finnegan discusses the complex relationship between written and oral tradition and the difficulty of drawing a strict line between these two mutually-influencing and often interdependent modes of composition and transmission. Drawing on various musical and poetic traditions, she gives a number of examples of written or
exactly memorised texts which are formulaic in nature (ibid.:69-70). Similarly, in Persian classical music, the same (or similar) formulae which are heard within improvised performance can also be found within the relatively fixed canonical repertoire of the \textit{radif}. A number of writers have explored the use of formulae within the thematic structures of western classical music (see, for example, Reti 1961, Walker 1962, and Schoenberg 1967). Indeed, it might be possible to suggest parallels between the types of "oral" composition discussed by Lord and Finnegan and the processes of notated composition in which the composer makes use of formulae learnt from his/her ongoing aural experiences. Whilst the work of Reti is primarily concerned with the ways in which motivic relations and transformations form the thematic basis of much western art music, certain formulae are clearly part of the general musical tradition whilst others are particularly characteristic of a musical style or of a specific composer.\footnote{For further discussion of formulae within oral traditions see Foley (1988) and Stolz and Shannon (1976). With specific reference to music, Kippen discusses formulaic patterns in the context of North Indian \textit{tabla} playing (1988b), whilst Treitler (1974) examines possible parallels between the transmission of the Homeric epics and Gregorian chant. Smith (1983) discusses the use of formulae by jazz musicians as does Berliner (1994, in particular pgs.227-230), who also refers the reader to other writings on the subject (ibid.:799-800, note 4).}

Whilst Section 1.4.1 suggested that musical creativity may involve a process of "abstracting" certain underlying "rules" which can be reapplied creatively by musicians (much as in spoken language), it is also important to note that memorised formulae (of varying lengths) also play an important role in musical composition/improvisation (as well as in spoken language). Within improvised musical traditions, formulae may be used as "fillers" whilst the musician works at the next creative step, as well as forming the basis for the creation of new formulae. The use of formulae as a compositional device in Persian classical music will be examined further in Chapters Six and Seven.

1.4.3 Sensori-Motor Factors in Generative Processes

Another factor in creative processes is the relationship between instrument structure and sound structure: the ways in which the interaction between the body of a musician and a musical instrument may generate (or prohibit) particular
movement patterns, and thus musical patterns. This applies both to music which is improvised and to that which is composed using notation. For example, Grunfeld notes the ways in which Berlioz's proficiency on the guitar shaped his conceptual thinking in the process of composition:

Everything that Berlioz composed is conditioned by the fact that he was not subject to the tyranny of piano habits. The way he spaces out his orchestral chords, the way his phrases are shaped and his rhythms change reveal a fresh, flexible mind that has been trained in the school of guitar rather than the boxed-in formulas of keyboard harmony (1969:202, quoted in Baily and Driver 1992:70)

Baily, in particular, has written extensively on this subject (1977, 1985, 1989, 1991, 1992, and Baily and Driver 1992) and its relationship to aspects of music cognition, with particular reference to the rubab and three types of dutar (all plucked lutes) of Afghanistan (and also to blues guitar playing):

The way the human body is organized to move is, in certain respects, a crucial element in the structure of music. A musical instrument is a type of transducer, converting patterns of body movement into patterns of sound ... The morphology of an instrument imposes certain constraints on the way it is played, favouring movement patterns that are, for ergonomic reasons, easily organized on the spatial layout. Thus, the interaction between the human body, with its intrinsic modes of operation, and the morphology of the instrument may shape the structure of the music, channelling human creativity in predictable directions. (1992:149)

Baily (1977) shows how well adapted the structure of the rubab and the different types of dutar are to the music usually played on each instrument, and the difficulties which arise when music generally played on one kind of instrument is transferred to another. He suggests that a two-way process over time has resulted in instrument morphology partly determining musical structure, as well as instruments themselves being constructed "... to suit particular motor patterns in order to fulfil certain musical requirements." (1985:242). Musical creativity should thus be seen as resulting not only from purely auditory processes, but also through:
... deliberately finding new ways to move on the instrument, which can then be assessed, and further creative acts, guided by the aesthetic evaluation of the resultant novel sonic patterns. (ibid.:257-8)

Baily also discusses characteristic patterns of movement - the "motor patterns" - which underlie any particular style of instrumental music. Once learnt, these motor patterns can function in a generative manner to create:

... "grammatically" correct novel sequences with a minimum of conscious planning by the player. This capacity is exploited in certain styles of music that deliberately cultivate improvisation, such as North Indian Classical music, but is probably operative in any instrumental musical skill. According to this model, musical creativity often involves using the "motor grammar" to generate novel melodic sequences, some of which are then selected by the creating musician to form his new "compositions". (1977:329)

In particular, Baily cites from the work of Blacking and Kubik on African musics, in which the basis of music-making often rests as much on patterns of body movement in relation to an instrument as on the resulting sound patterns (1985:238-242).12

Baily considers that the closer ethnomusicologists come:

... to specifying universals in music, the more they are dealing with phenomena that are rooted in the psychophysiological nature of the human being ... (ibid.:238)

... the physiological processes underlying skilled movement are universal human attributes. Likewise, it can be argued that the psychological processes that underlie human skill, such as perception, recognition, memory, attention, decision making, motor programming etc. are also universal. (1977:325)

These are clearly important considerations in any study of musical creativity. Moreover, it would seem that (with reference to the discussion in Section 4.4.1)

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12 Other writers who have focused on this aspect of the music-making process include Sudnow (1978) with reference to jazz piano playing, Stokes (1992:70-81) in discussing the Turkish bağlama, and Stock (1993) writing about Chinese fiddle music.
any attempt to identify underlying "rules" (or "grammar") for music should incorporate information not only about sound structures but also about patterns of movement in relation to particular instruments.

In Persian classical music, the improvisations of musicians playing the same, or structurally similar, instruments might be expected to share certain features determined by sensori-motor factors (indeed, Baily discusses this with respect to the two main long-necked lutes of Iran, the tār and setār, which are briefly compared with the Afghan lutes [1977:318-9]). Thus, for example, the morphology of the santur (hammered dulcimer) allows rapid movement from one octave to another in a manner which is less feasible on other Persian instruments, and the use of a large range and octave tremolos, for instance, are noticeable features of many santur performances. Chapter Seven will explore this aspect of Persian classical music in greater detail.

1.5 Decision-Making Processes

Decision-making clearly plays an important role in musical creativity. In the case of Persian classical music, musicians have to make a series of decisions at each performance regarding which sections of the repertoire to perform and how to perform them. Whilst decisions regarding the former - which dastgāh (modal system) to perform, and the number and order of gushehs within that dastgāh - are often made prior to a performance (particularly in group renditions; according to Zonis, the choice of dastgāh used to depend upon the time of day [1973:99-100])¹⁳, they may well be changed at the time of performance. Detailed decisions of musical structure, including the ways in which motifs and phrases will be varied, extended and joined together, are not generally determined beforehand, but take place throughout a particular performance. However, the speed with which such decisions have to be made during performance suggests that they are based upon aural and spatio-motor patterns which comprise the performer's musical knowledge and which can be drawn upon rapidly in the performance situation (see the discussion of formulae in the preceding section),

¹³ Zonis (1973:99ff) also includes a general discussion of the decision-making processes in Persian classical music.
possibly at a level below that of awareness.

In all musical decision-making the effect of the musical and social context on the musician is important:

In every performance situation social and musical decision-making is carried out in relation to the more general body of cultural knowledge ... (Blacking 1979b:7)

These options themselves are not created by the individual performer, but are social and historical; it is only choosing which is the prerogative of the musician. (Durant 1984:8)

Performance decisions may be affected by, for example, the receptiveness or otherwise of an audience or fellow performers, and are also shaped by certain spoken or unspoken musical "rules". For example, whilst the Persian musician must decide upon the inclusion and ordering of gushehs in a performance, the music usually follows the pattern of a gradual rise in pitch followed by a descent to the original pitch level at the end (to be discussed in detail in Chapter Four; see also Nettl 1987 for further discussion of this with reference to dastgāhs Chahārgāh, Māhur, and Shur).

Decision-making during performance is not only affected by the context, but also by the ongoing musical process. Thus there is a continual feed-back to the musician: the way in which the music proceeds will partly depend upon the performance up to that point:

Excellence in improvisation results from having "at one's fingertips" a large repertoire of procedures or options for accomplishing some end result within a limited time. In this respect it resembles fluent public speaking, or rapid mental calculation ... In such performances, one can often not know the best step to take unless one has determined the result of the previous step ... Thus, it is clearly not enough for an improviser to know how his or her performance must be structured ... the improviser must have rapid access to a large and well-organized body of knowledge ... Even the expert improviser will have a distinctive "style" that reflects the way his or her improvisatory repertoire is chosen from the infinitely large set of possible options ... (Sloboda 1982:484, italics added)
In the case of Persian classical music, the socio-cultural setting and the musical culture\textsuperscript{14} as a whole interacts with the performer's knowledge of the musical repertoire, and with his/her experience of the particular performance (or composing) event, to effect decisions concerning material to be presented and the procedures for presenting that material.

Decision-making also plays an important role in written composition, where the composer must decide, among other things, what kind of piece to write, and for what forces, as well as the continual decision-making regarding the internal details of the music. Of course, as discussed earlier, an important difference between the creative processes of improviser and composer is that the former has to make decisions relatively rapidly, and is less able to modify such decisions than the latter. In the case of the non-improvising performer, s/he must decide which piece(s) to play (usually prior to a performance) and also make decisions regarding aspects of interpretation, although, as in the case of the improvising musician, these may be subject to change at the time of performance.

1.6 Concluding Remarks

Chapter One has examined various aspects of the relationship between the individual musician and the tradition in which s/he creates, in particular exploring the ways in which one might understand terms such as improvisation and composition. In addition, musical creativity has been considered within the wider context of human creativity in general, drawing in particular on ideas from a number of different disciplines. Many of the points discussed in this chapter will be explored further with specific reference to the repertoire of Persian classical music in the analyses of Chapters Four to Seven.

\textsuperscript{14} The expression "musical culture" (or "music culture") is often used by ethnomusicologists to refer to the complex of activities, institutions, concepts, etc. which comprise the "life" of music in a particular society.
Chapter Two  The Radif of Persian Classical Music

2.1 Introduction

It was argued in Chapter One that musical creativity, whether in performance or in writing, is always embedded within the conventions of a music system, and may also depend upon the interpretation of a specific "model" or "framework". In Persian classical music there is a structure which lies at the heart of the musical system and which forms the basis for creativity, both within performance and also in written composition, and which is known as the radif (lit. "row", "series"). Fundamentally to an understanding of creativity in this music is the relationship between the learnt repertoire of the radif and the improvised performances which are based on it. Relatively few writers, however, have examined this relationship in detail, important exceptions including the study of the opening section of dastgah Chahargah (with Foltin 1972) and other parts of the repertoire (1987) by Nettl (the latter in collaboration with a number of writers). Tsuge tackles similar issues in his study of vocal music (1974), and Massoudieh (1968) compares various radif versions of dastgah Shur with one specific santur performance in the same dastgah. It is significant that some earlier writers, such as Khatschi, Massoudieh, and Caron and Safvate, only mention the radif in passing. Nettl suggests that this may be because the concept did not correspond with ideas of Middle Eastern musical practice that had already been developed by scholars in the west (1987:4). However, the fact that most of these writers were themselves Iranian suggests a possible alternative explanation: that in the course of this century, the concept of the radif has grown in importance in Iran itself, and that

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15 The literature on Persian classical music (in European languages) includes a number of comprehensive introductory publications: Caron and Safvate (1966), Sadeghi (1971), Zonis (1973), During (1984a), and Farhat (1990; see also 1980b). Discussion of the radif can be found both within these and other general publications such as Khatschi (1962), Nettl and Foltin (1972), and Tsuge (1974), as well as within publications concerned primarily with the radif itself, such as Modir (1986b), Nettl (1987), and During (1991a; this is the introduction to the accompanying transcription of Borumand’s radif, and is given in Farsi and English as well as in the original French). Other writings include the following: Gerson-Kiwi (1963), Zonis (1965), Wilkens (1967), Massoudieh (1968, 1973), Battesti (1969), Jones (1971), Nettl (1972, 1974a, 1974b, 1975, 1976, 1979, and 1981), During (1975, 1977, 1984b, 1987c, 1989a, 1991a, 1991b), Beeman (1976), Lotfi (1976), Ayako (1980), Zolfonoun (1980), Caton (1983), Modir (1986a), and Ogger (1987). Publications in Farsi (both specifically on the classical music as well as general publications which include discussion of this music) include: Shabani (1973), Mansuri and Shirvani (1977), Massoudieh (1978; general introduction which precedes the transcription of Karimi’s radif, and which is also given in French); Joneydi (1982), Khaleqi (1982, 1983a, 1983b, 1983c), Khani (1987), Sepanta (1987), and Behroozi (1988).
it was considered less noteworthy by earlier writers. This will be discussed further in the course of this chapter.

2.2 The Radif

2.2.1 The Semantic Domain of "Radif"

The term radif refers to the basic repertoire of Persian classical music as taught by a classical master (ostād) to his pupils. Once learnt, this repertoire forms the basis for the improvised performances of musicians. The radif comprises approximately four hundred short pieces called gushehs (lit. "corner") which are distinguished both by mode and by characteristic melodies and motifs, and which are arranged into twelve modal systems known as dastgāhs (lit. "system").

Each of the dastgāhs and gushehs have individual titles, for example some are named after regions or towns of Iran, whilst others allude to a particular sentiment or quality of character. Some of the older names, such as Segāh (lit. "third place", indicating the relative position of the starting pitch of this mode), can also be found in the neighbouring Arabic and Turkish musical traditions. It is possible that the names of individual sections of the repertoire reflect the diverse origins of the musical material now brought together in the radif, suggesting that Farahāni, the musician initially responsible for the organisation of the present day repertoire, was in receipt of a heterogeneous tradition.

Although in some respects a relatively straightforward concept, the underlying complexities embodied within the term "radif" are revealed in the many definitions to be found both within the literature and as provided by practising musicians. An examination of these definitions suggests two related but distinct ideas. On the one hand, there is the concept of radif as a body of repertoire:

(This) repertory of melodies, which forms the basis of classical Persian music ... (Zonis 1973:14-15)

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16 It should be noted that whilst the term "system" is used by a number of writers (for example, Zonis 1973:65, During 1984a:107, and Farhat 1990:20) in the context of "dastgāh", there is a certain element of ambiguity here, since this term can also be used to refer to the "musical system" as a whole.
... the fundamental canon of material upon which performances and improvisations are based ... (Nettl 1972:12)

The true [assli] meaning of radif is the most documented [modavantareen], the most defined [moayeniareen], the most established [tasbeedtareen] melodies which have been passed down to us from previous generations (Parviz Meshkatiän, Interview 20.7.92)

On the other hand, there is also the idea of the radif as a structure which embodies the rules of composition and which is used to teach those rules:

... the arrangement of gushehs inside the twelve or fourteen modal systems as well as the ways of playing these gushehs ... (During 1984a:123, italics added)

Later in the same publication, During again stresses the "model" function of the radif, defining it as:

... uniquely a rhythmically free modal model ... [which] may be elaborated not for itself, but in order to teach a method of playing or improvising ... studying a traditional radif ... is the only way of assimilating a living music which draws upon improvisation and creativity ... (126) ... a model of free play which can be reproduced note for note ... The model is not only the basis, but also the example of free play in the style of such and such a master or school. (ibid.:135)

The radif thus appears to function both as repertoire and as a collection of creative procedures for the re-creation of that repertoire: as "illustration" and as "prototype", roles that are intimately connected. Clearly, both aspects are important for the maintenance of the tradition. Indeed, the idea that musical structures embody the very rules for their own renewal is applicable outside the Persian classical system. Thus, Nattiez suggests that "... music generates music" (1983:472),17 and Rice responds:

17 Regarding the generative properties of music, it is interesting to note that according to Zoologist Richard Dawkins "... there are other kinds of things [besides DNA] which deserve the title of a replicator." He has coined the term "meme" to refer to "... the brain equivalent of a gene ... Like the DNA that makes up our genes, memes can multiply, mutate and evolve, but unlike DNA they breed not in nature, but in culture, through human communication." (Wyver 1990:19-20). Indeed, one of the illustrative examples given
I prefer [the] ... claim that people generate music at the same time that it acknowledges the formative power of previously constructed musical forms. (1987:474)

Thus, it would seem that all music (whether composed in writing or improvised in performance) functions "... both as models and as examples of performance." (Nettl and Foltin 1972:21). Whilst this applies both to teaching repertoires and to the various other musical experiences from which musicians learn in the course of their creative lives, it is possible that teaching repertoires (such as the radif in the case of Persian music) are particularly dense in information relating to the creative procedures of the music. In western music performance, scales, arpeggios, and studies (in addition to their role in developing technical facility), and in written composition, harmony, counterpoint, and other exercises, play a similar role. Responding to a question about how musicians learn to create on the basis of the radif, the author's principal informant, Firooz Berenjiân (a musician in his mid-forties), made the following comparison:

When you improvise at the piano [ie western music], you play with your feelings, but your playing is based on the technique which you have learnt ... you make use of all of these [scales, chords, material from studies, etc.], but in fact you are not playing studies, you are just improvising [fel bedaheh] something, whatever comes into your mind ... likewise, the radif in Persian music is a kind of étude. (Interview 10.11.89)18

Whilst there are no essential differences in musical structure between the learnt repertoire of the radif and the performances based on it (Nettl and Foltin 1972:19; and as will be seen in the analyses of the following chapters), yet musicians make a clear distinction between the two: the theory of the radif on the one hand, and the practice of performances on the other. This is expressed in various ways by both writers and musicians:

In one sense, it is the central repertory of the musical system of Iran; in another ... it is the theory, as opposed to the practice that

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by Dawkins is the transmission of a song from person to person, in the process of which the song may evolve and change, and also be subject to natural selection.

18 All direct quotations from interviews with musicians have been translated from ~by the author.

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consists of performances based in various ways upon it. (Nettl 1987:3)

Thus, this repertoire represents a mere point of departure and a source of inspiration for the creation of an ever-changing and highly personal musical expression. (Farhat 1965:xv)

... a group of about 400 gushe (a self-sustained melodic pattern or tune). Persian music is not confined by or limited to these 400 gushe. They are stepping stones for improvisation. (Zolfonoun 1980:29)

Therefore, just as "studies" in western music are considered to be the "building blocks" of performance (Nettl 1983:326) as opposed to actual "performable" music, so the radif is not generally considered to be material to be performed as learnt (which would demand a relatively low level of creativity). To be a good teacher requires a formidable memory to remember and transmit the intricate details of the radif. The mark of a good performer, however, is the ability to exercise creativity within the structural framework of the radif. Whilst there are musicians, sometimes referred to as radif navāz, who may play the radif "note-for-note" in performance as a set piece, this is rather unusual, and is regarded as a very different activity from improvisation. Such renditions are certainly not as highly valued as improvised performances. It should also be noted that improvising musicians themselves vary in the degree of closeness of their performances to the musical material of the radif, and this will be considered in later chapters.

To the extent that the radif is the basic repertoire of this music, it represents the equivalent of a "framework" or "model" underlying improvised performances. Indeed, performing musicians generally regard the radif as their main source of inspiration as well as of musical material. It should be noted, however, that the radif also has a wider all-pervasive presence in the musical culture (Nettl 1987:111), playing an important role in generating many different types of music. Whilst much of Persian classical music comprises improvised performances, there is also a great deal of music which is pre-composed and notated, often within the
set genres of *tasnif*, *pishdarāmad*, and *reng*, in the context of which the *radif* serves as a starting point for written composition. Ultimately, however, its most important role is within the non-measured, generally solo, *āvāz* sections of the music, which form the main focus of this study.

2.2.2 *Radif* in Historical Perspective

Whilst the history of the *radif* is somewhat speculative, it seems likely that for many generations (possibly hundreds of years), each *ostād* would transmit his particular repertoire of pieces, developed and refined over years of playing, listening, and teaching:

As far back as one can speculate (Tsuge 1974:29, citing Safvate 1969), each teacher assembled melodies that he used as his basic pedagogic toolkit. (Nettl 1987:5)

Every master had, and to a large extent still has, his own versions of each *gusheh* that is passed on to his students and followers. (Zonis 1973:62)

Despite the lack of clear evidence regarding former practices, it is probable that before the middle of the last century, there would have been a great deal of variation between the teaching repertoires of individual *ostāds* and different schools of musicians, as well as from one region of Iran to another. Farāmarz Pāyvar (a prominent performer and teacher of *santur*) suggested that in the past musicians would have selected pieces from their playing repertoires, and that these would become standardised or "fixed" (*sābet*) in order to create a teaching repertoire or *radif* (Interview 8.11.90). It seems likely that this repertoire, comprising pieces in different modes, would have been learnt by pupils and would later have formed the basis for improvised performance, as well as being transmitted to the next generation of pupils with slight variations (in direct contrast to this argument, During suggests that the old *radifs* were more or less identical [1984a:127], although it is unclear on what basis this hypothesis is

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19 See Glossary for definition of these genres.
Each performer (navâzandeh) or composer (âhangsâz) of Persian classical music who attains the position of ostâd presents an individual radif in his own name. (Sha'bâni 1973:46)

The trends of musical practice since the middle of the nineteenth century suggest that many of these versions may have been lost (Nettl op.cit.:6; but see discussion below), although the absence of documentation makes it difficult to judge to what extent any of the material may have survived through assimilation into modern-day radifs. The oldest accounts record only the names of pieces, and whilst many of these names are no longer used, it is possible that musical material may have survived under new names and been transformed in the continual re-creation that is part of any musical tradition.

The existence of the radif is an important distinguishing feature between Persian classical music and the closely related musics of the neighbouring Arabic and Turkish traditions. However, the idea of a modal core which forms the basis for improvisation is shared with other Middle Eastern musics. Powers (1980c, 1989) discusses at length the semantic field of "mode", making a clear distinction between two different meanings of the word: mode as "tonal category" (a hierarchy of pitches) on the one hand, and mode as "melody type" on the other. He also suggests levels at which useful comparisons might be made between the various modal entities of Middle Eastern musics.

In Persian music, it is the individual gusheh which forms the basic modal unit and the main conceptual unit of improvisation rather than the dastgâh (or radif) as a whole, since a dastgâh performance comprises a series of gushehs in different (but related) modes. Historical evidence suggests that prior to the development of the radif, the practice of Persian classical music may have been closer to that of the present-day maqâm system of other Middle Eastern musics, with performances comprising both improvised sections and composed material in a single maqâm. A number of writers have speculated as to the reasons why these individual

20 However, a similar structure to the radif, but less formalised, does exist in the musical traditions of Azarbaijan (see During 1989b).
maqāms/gushehs subsequently became grouped into what later became known as dastgāh in the radif as it developed in nineteenth century Iran. One hypothesis suggested by Farhat attributes this to the "... general decline of musical scholarship in Persia, from the sixteenth to the twentieth century." (1990:19):

As musical scholarship suffered and performance ability, based on theoretical know-how, was eroded, it became increasingly difficult to present a performance of a respectable length with the use of a single maqām ... Consequently, performers resorted to the device of progressing, or modulating, from one maqām to another, usually not too remote in its modal structure. In some cases, eventually, this stringing of maqāms led to more distant modes. (Farhat 1980a:5)

During suggests that the idea of linking modally-related pieces actually dates back as far as the sixteenth century, and relates the development of the dastgāh concept in Iran to the existence of a similar construct in the music of Azarbaijan, which he argues was perhaps brought to Iran by the Qājār monarchs (r.1799-1925), who originated in Azarbaijan and who brought Azari and Turkish musicians to their court in Tehran (1984a:129, 1991a:63). Whilst a lack of documentary evidence makes it difficult to establish exactly why this joining of shorter modal units should have emerged, at some point towards the middle of the last century the teaching repertoires of individual musicians comprising pieces in different modes acquired the name of radif. It was around this time that Ali Akbar Farāhāni (1810-1855), master of tār and court musician to Nāsser-e Din Shāh (r.1848-1896), began to formalise the gushehs of his own teaching repertoire into the twelve dastgāhs of the modern-day radif, doubtless using much musical material that had been passed down to him from a long line of masters, as well as material from the general musical tradition in which he worked. However, it was two of Farāhāni's sons, Mirzā Abdollāh (1843-1918) and Āqā Hossein Qoli (c1851-1915), who were largely responsible for the transmission of their father's radif. Although it is known that Farāhāni had numerous other students, little information is available concerning them, and the most important line of transmission is generally considered to be through his sons and their pupils.

According to Khāleqi's history of Persian music, which provides a wealth of information about the lives of the most important musicians at this time, Farāhāni
also taught his *radif* to his nephew, Āqā Qolām Hossein (1983b:110). Following the death of Farāhānī, Qolām Hossein assumed the musical education of his cousins, apparently with some reluctance. Mirzā Abdollāh was twelve years old when his father died, and there is some doubt as to whether he studied with him at all. In any case, his main teachers were his cousin and his older brother, Mirza Hassan (another of Farāhānī’s children, who died whilst still young), both of whom were in receipt of Farāhānī’s repertoire. Mirzā Abdollāh played both *tār* and *setār*, but was particularly well known for his *setār* playing. He was also important as a teacher, since unlike many musicians of his day who jealously guarded their knowledge, Mirzā Abdollāh was aware of the importance of passing on his *radif* to younger musicians. However, Mirzā Abdollāh is best known for his completion of the organisation of the *radif* into twelve *dastgāhs*, as begun by his father. The most famous of his four children (all of whom became proficient *setār* players), Ahmad Ebādi (1907-1994), was musically active until his recent death, and is probably the most highly regarded performer of *setār* of this century. Ebādi, the youngest son of Mirzā Abdollāh, was still a child when his father died (like his own father before him), and he learnt his father’s *radif* mainly from his older sister, Mowlood, who reputedly had a good knowledge of the repertoire. Farāhānī’s youngest son, Āqā Hossein Qoli, learnt the *tār* firstly with his brother and then with his cousin, Āqā Qolām Hossein. Hossein Qoli had a thorough knowledge of the *radif* and was also important as a teacher, but unlike Mirzā Abdollāh, who spent a great deal of time in teaching and consolidating the repertoire of the *radif*, Hossein Qoli spent many hours each day practising and perfecting his *tār* playing, and is now remembered as the best *tār* player of his time. One of his sons, Ali Akbar Shahnāzī (b.1898), became prominent as a teacher and performer of *tār*. Like Mirzā Abdollāh, Hossein Qoli was also a court musician to Nāsser-e Din Shāh, and it is clear that this whole family played a highly significant role in shaping Persian classical music as we know it today.

The arrangement of the musical repertoire into the twelve *dastgāhs* coincided with the gradual expansion of contact between Iran and Europe. Several European musicians came to Iran to help establish military bands (Zonis 1973:39,186) and

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21 Much of the information in this and the following paragraph is taken from this publication. The reader is also referred to Massoudieh (1973) for a historical overview of Persian music in the nineteenth century.
some Persian musicians visited Europe. Hossein Qoli, for example, travelled to Paris with a number of other musicians at the beginning of this century in order to make recordings (Khâleqi 1983b:133-4), and between about 1906 and 1914 Darvish Khân (1872-1926), another prominent musician, made three separate trips to Europe accompanied by other musicians in order to make recordings for The Gramophone Company (Zonis 1973:192). Nettl (1987:6) suggests that Mirzâ Abdollâh may have been influenced by what he knew of western music theory, and wished to develop a similar unified theory for Persian music. Whilst systemisation is certainly not unknown to the Persian musical tradition (although the high point in theoretical work seen in the writings of the medieval period has not been equalled since), increased contact with the West in the twentieth century fostered the idea of western music as more theoretically "grounded" than Persian music, and thus more "advanced". Indeed, a distinction is still often made between western and Persian music on the basis of the former being "elmi" ("scientific") and by implication superior. It is likely that the endeavour of musicians to present Persian music as "scientific" is rooted in a desire to elevate the status of music within this Islamic society. Mirzâ Abdollâh may have been influenced by these ideas, and to a certain extent he provided a synthesis between the tradition which he inherited and the new ideas and concepts that were filtering into Iran from Europe.

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22 The Gramophone Company merged with Columbia in 1931 to form EMI (Electric and Musical Industries Limited), and became Thorn EMI in 1979. Not only did Persian musicians travel west to record, but from the beginning of the century western recording companies began to expand their operations, as they became aware of the vast potential market for recordings outside Europe and North America. In 1906, the Gramophone Company received its first royal warrant from the Shah of Persia, and in the same year, the Persian branch of the Gramophone Company was opened, but closed again about two years later. For most of the period between 1900 and 1910, Iran was supplied by the Tiflis office of the Russian subsidiary of the Gramophone Company, A.O.Grammophon (Tiflis, now Tbilisi, the capital of the Republic of Georgia; musicians also travelled to Tiflis to make recordings), and indeed Russia was Iran's main supplier of gramophone machines and records until 1917. For further information, the reader is referred to the detailed account by Gronow (1981).

23 Indicative of this, for example, is the discussion of the work of Iranian composers by Mansuri and Shirvani, in which a distinction is made between those composing "traditional music" (musiqi-e sonnati; that is, compositions firmly rooted in the Persian tradition) and those composing "developed music" (musiqi-e tahavol yafteh), the latter comprising mainly younger composers (relative to the first category), who were trained in the West and/or compose in a western style or for western instruments (1977:157).

24 See Baily (1988:162) for an analogous situation in Afghanistan, where the adoption of Indian music theory seems to have largely resulted from a similar desire to gain a more respectable position for music and musicians within society.
2.2.3 Single Radif, Multiplicity of Radifs

Whilst what is known of the history of Persian music points to a certain diversity among teaching repertoires prior to Faråhåni (see discussion above, and also During 1991a:63), from the early years of this century, the radif of Faråhåni, particularly as consolidated and transmitted by Mirzå Abdollåh (and usually referred to as radif-e Mirzå Abdollåh), began to gain an increasingly central position. It is likely that this was the result of a number of factors. Not only did Mirzå Abdollåh and Hossein Qoli both enjoy relatively favoured positions as court musicians, but in addition their pupils played an important role in promoting this radif. Indeed the readiness of Mirzå Abdollåh to pass on his radif, and the consequently large number of musicians who were in receipt of this line of the musical tradition is probably significant in this respect. Moreover, it is possible that Faråhåni’s comprehensive ordering of pieces emerged at a time when musicians were beginning to feel the need for a focal repertoire of some kind. Ultimately, the combined effects of the growing dominance of the national capital, Tehran, as a political and cultural centre, and the fact that the most prominent musicians of this century have emerged from this line of teaching have established and reinforced the idea of the radif of Mirzå Abdollåh as the radif of Persian music, and the particular style of these musicians has come to dominate the musical tradition. Moreover, later in the century, as educational institutions gradually replaced traditional teaching contexts, and musical education became more centralised (and as a result, more standardised), it was the radif of Mirzå Abdollåh which was presented and taught as the main repertoire of this music. As will be discussed below, the fact that a large proportion of musicians born after 1940 were educated at such institutions has been a major factor in the prominence of this radif.

However, there is no definitive version of the radif of Mirzå Abdollåh.25 The original version of this radif was never recorded, although it was of course transmitted to numerous pupils, some of whom started the process of recording, initially in notation and later as sound recordings. One of the earliest notations was carried out in the early part of the twentieth century by Medhi Qoli Hedåyat

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25 Although the version taught by Borumand is generally claimed to be the closest to the original version of Mirzå Abdollåh; see Footnote 30 and Section 2.2.4 below.
from the playing of Dr Mehdi Montazem al Hokamā (also known as Mehdi Solhi), who was among the best pupils of Mirzā Abdollah. According to During, this notation was deposited at the Honarestan-e Melli in Tehran, but the type of transcription used is difficult for present-day readers to interpret (1984a:128). However, the names of the datsgahs and gushehs in this radif are listed in Hedāyat (1928). Another transcription, carried out by Ali Naqi Vaziri, who studied with both Hossein Qoli and Mirzā Abdollah, and which is said to have been verified by the masters themselves, appears to have been lost (During op.cit.:32,128), although apparently not before Mussā Ma’rufi was able to study it (see below; details of early versions of Mirzā Abdollāh’s radif are given in During op.cit.:127-9, 1991a:62-3, and Netti 1987:5-7). Since, until relatively recently, it was common for an ostād to teach his own particular version of the radif to his pupils (thus continuing a tradition which goes back much further than Farāhani), the result has been a number of different versions of the radif of Mirzā Abdollah, some of which became available in published form. Thus, musicians refer to "the radif of ostād Sabā" or "the radif of ostād Karimi", whilst acknowledging that these are derived from that of Mirzā Abdollah. The complex of teacher-pupil relationships in this tradition has resulted in close interrelationships between the different versions of this radif, the totality of which Nettl has likened to the "tune families" in European folksong traditions (Ibid.:5), and most of the radifs which are commonly used today can be traced back to Farāhani and Mirzā Abdollah. On the one hand, therefore, there exists the concept of many closely related radifs (of individual musicians), and on the other the idea of the one original "authentic" radif: that of Mirzā Abdollah.26

However, whilst the radif of Mirzā Abdollah has become the central repertoire of Persian classical music, and indeed the term "radif" itself emerged at the time of Farāhani, it appears that other repertoires do exist. Thus, Sepantā suggests that from the diversity of repertoires prior to Farāhani, a number have continued to the present day, particularly in cities outside Tehran, such as Esfahan, Kerman,

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26 Whilst in English, such a distinction can be made by referring to "a" radif or "the" radif, it should be noted that the absence of definite or indefinite articles in Persian means that these two meanings of radif are not always obviously differentiated, but are generally implied by the context.
and Shiraz (1964:29). Similarly, Massoudieh briefly mentions four main radif traditions, represented by "schools" or maktab based in the cities of Qazvin, Shiraz, Esfahan, and Tehran (1978:16, based on information from Abdollâh Davâmi). Sepantã expresses concern that the increasingly central position held by the radif of Mirzâ Abdollâh has led to other, equally valuable, repertoires being largely ignored by the musical establishment. Indeed, this radif has become even more prominent in the twenty years since the publication of this article. Tsuge (1974:29-30) lists four main sources for studying the repertoire of the radif: the radif taught by Mirzâ Abdollah and Hossein Qoli; the santur radif of Somâ Hozur and his son, the legendary santur player Habib Somâi (1901-1946); the radif employed by singers of Ta'zieh (religious "passion plays", see Footnote 75); and what he refers to as the "Esfahan School" with a tradition going back to the sixteenth century. Of these, the second has not survived in print or recording (although it is important to note that Sabã was a pupil of Habib Somâi), and the latter two are poorly documented. During speculates about the existence of other radifs in private collections (1984a:129), and Zonis suggests that "... the radif of Mirza Abdullah ... does not represent the entire maqam tradition in Iran but merely one of its major branches" (1973:67). Nevertheless, the term "radif" today generally implies some relationship to the body of pieces transmitted by Farâhâni and his sons, which is considered to be the most "authentic" repertoire of Persian classical music (Nettl 1987:6).

Together with the increasingly accepted idea of the one "authentic" radif, in the course of this century the radif of Mirzâ Abdollâh has also come to be viewed as unchanging (and unchangeable; "an unalterable model", During 1991b:203) and by implication, perfect. Regularly encountered in conversations with musicians, this is also expressed in the following quotation by the prominent female singer Parisã (a pupil of Karimi):

27 The political history of Iran has been such that the national capital has changed a number of times during the past few centuries. Tehran has been the capital since 1788, and the prominence of the nineteenth century court musicians has somewhat overshadowed musical activities in other cities, many of which also had established courtly traditions. Writings on Persian classical music have therefore generally focused on the tradition as found in Tehran, and relatively little has been written on the classical music traditions found elsewhere in the country. However, During, for example, does briefly mention Esfahan (1984a:25), a city particularly renowned for its players of néi, and which was the capital of Iran during the Safavid dynasty (1501-1722). Moreover, as mentioned earlier, the naming of individual dastgahs and gushehs within the radif transmitted by Mirzâ Abdollâh suggests that certain sections of the repertoire originated from different parts of Iran.
I have witnessed the honest rigor of Karimi's work. Under no circumstances would he allow the shifting of a single note in a gushe. With his idiosyncratic scientific precision, he took painstaking care to transmit the entire unadulterated text of the radif to his students. A gushe taught by him, say, twenty years earlier, would not be altered one iota, when tackled in his class, twenty years later. (quoted in During 1991b:221)

However, it is interesting that whilst many writers and musicians who were interviewed insisted on the integrity and stability of the radif, "There is no possibility of the radif changing" ("Emkan nadâreh radif avaz besheh") (Pãyvar, Interview 8.11.90), there clearly have been changes since the time of Mirzâ Abdollãh. This can be seen, for example, in the published radifs of individual musicians such as Sabã and Vaziri. Whilst adhering to the tradition in some respects, these publications present changes to the "authentic" version of Mirza Abdollãh, and yet are nowadays readily accepted as central to the "tradition" by the very musicians who claim that the radif does not change:

The idea that it [the radif] does not change reflects the abiding importance of certain cultural values, and the documentable fact that the radif is actually a recent restructuring of older materials which has changed a good deal since 1900 is typically ignored. (Netti 1983:208)

Thus, During discusses the ways in which the radif of Segãh may have changed, apparently in the last century, although dates are not given (1984a:133-4; see Chapter Four, Section 4.6). Moreover, following the quotation from Parisã above, it is interesting that there are clear differences between the dastgãh Shur (radif) as sung by Karimi's main teacher, Abdollãh Davãmi, and transcribed and published in Lotfi 1976, and the version of Shur published in Karimi's radif (Massoudieh 1978). It is possible that musicians such as Pãyvar perceive there to be certain central and significant aspects of the radif which remain stable, despite other changes from one version to another. However, whilst it seems to have been acceptable for outstanding musicians earlier in the century to develop and publish their own teaching repertoires (but always based on the "original"

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28 It is interesting that whilst Parisã speaks of the "... entire unadulterated text of the radif...", During claimed (based on his own interviews with Karimi) that the radif taught by Karimi was in fact only a small part of his complete repertoire (Interview 8.12.90, see also Footnote 34 below).
Given the term "radif" nowadays it would seem that musicians do not develop their own teaching repertoires as such. Meshkātiân, for example, explained that teachers today choose to teach a particular radif depending on their knowledge and training, rather than develop their own (Interview 20.7.92). However, he qualified this from his own experience by explaining that whilst he teaches the radif of Mirzā Abdollāh (in the version taught by Borumand) at the University of Tehran, he will also teach gushehs from other radifs (such as that of Hossein Qoli) if he considers them to be worth learning. This suggests a continuation of the tradition of ostāds developing their own teaching repertoires by drawing on a number of sources (and which is exactly what ostāds such as Maʿrufi and Sabā have done in their published radifs).

In addition to the meaning of "radif" as a (more or less) formalised repertoire, a number of sources reveal a less commonly expressed meaning, and one which perhaps lies closer to the original sense of the word. The original diversity of repertoires suggested earlier implies a dynamic situation in which the teaching repertoire of an ostād might have included pieces which whilst originally improvised, became incorporated into the repertoire over time:

Whatever a true master played, it could be considered as a radif...
When you listen to Habib Somāi’s santur, whatever he plays could be a model that you learn precisely, because it is perfect. (During, Interview 8.12.90)

Indeed, Pāyvar claimed that the radif of Sabā was based on listening to the playing of Somāi which he "... shaped into the form of a radif" ("be soorat-e radif dar āvord", Interview 8.11.90). Of course, in this context, "radif" is used in a very general sense to refer to a model which can be learnt and used as a basis for improvisation - any model, provided that it lies within the tradition:

It seems that in the past musicians have enriched the radif by enlarging it with more or less personal compositions or arrangements of airs drawn from diverse origins. The radif itself is made of pieces that are joined together. Nothing can prevent a musician, if he thinks it appropriate, to add to it another passage and try to teach that passage. (During 1991b:203)
Alizâdeh’s perception of the dynamics of the tradition, the relationship of radif to performed music, and the contributions of individual musicians to the ongoing tradition is based on the premise that the radif developed out of playing repertoires and not the other way round:

The radif is like a grammar of language ... a linguistic grammar is always formulated after the language itself develops; and the radif and technique have also developed in the course of history as a result of the creativity of artists, and history does not stop. (Sarkoohi 1989:32)

Alizâdeh expresses frustration at musicians who claim to maintain the "authentic" repertoire, resisting any change, when that repertoire itself developed over time through change:

All those things which have taken shape under the name of musiqi-e sonnati ("traditional music") did not exist right from the beginning, but were gradually created in the course of history in response to social and cultural needs. How can one accept that only those in the past had the right to create and to express an opinion, but that people in the present and the future cannot be creative? (Ibid.:36)

Thus, there are two potentially conflicting perspectives regarding the dynamics of the tradition, and which are interestingly reflected in two key words in the quotations above by Parisâ and During - the one considering any changes to the radif as "adulterations" and the other viewing the same as "enriching". The claim that the radif of Mirzâ Abdollah was being taught with minimal change from its original form by Borumand in the 1960s and 1970s may indeed have been the case, but given the absence of any recorded evidence of the original radif (except for the names of gushehs whose relationship to details of musical structure is unclear), such a claim is difficult to substantiate. However, despite evidence

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29 All direct quotations from this published interview have been translated from the & ' by the present author.

30 It is interesting that the very title of this version of the radif - radif-e Mirzâ Abdollah be ravâyât-e Nur Ali Borumand ("the radif of Mirzâ Abdollah as told/related by Nur Ali Borumand") - implies minimal change from Mirzâ Abdollah’s original ("râvâ" from which "ravâyât" is derived, means narrator or oral historian). However, in During’s 1991 publication of this radif, "be ravâyât-e Nur Ali Borumand" is translated into French as "Version de Nur Ali Borumand", which would seem to suggest some changes from the original.
regarding the diversity of teaching repertoires prior to Farahani's canonisation of
the radif, and the existence of other radifs today, as well as the fact that "new"
versions of Mirzã Abdollãh's repertoire have been published (for example, the
radifs of Sabã and Vaziri), the idea of the one "correct" and authoritative version
of the radif has grown in the course of this century, strengthened in part by the
advent of notation and sound recording. Thus, as discussed above, whilst
musicians today acknowledge different versions of the radif, these are usually
understood to be derived from that of Mirzã Abdollãh rather than a totally
unrelated repertoire.

2.2.4 Different Versions of Mirzã Abdollãh's Radif

Since the mainstream of Persian classical music today is based on the inheritance
of Farâhâni and Mirzã Abdollãh, this is the radif which will form the main point
of comparison with performances in the course of this study. What survives of
Mirzã Abdollãh's original radif are the lists of the names of gushehs as played by
his pupils (Hedâyat 1928, Nasir 1989 [originally published 1903]), and the
tradition as recorded, notated, and also preserved in the oral tradition by his
pupils and grandpupils. Nettl (1987:6-9) and During (1984a:127-9) both list the
versions of this radif which exist in notation and as sound recordings and which
are generally available to musicians today. The first publication of Persian
music using western notation, Vaziri's Dastur-e Târ (1923, published in Berlin),
was not a radif as such, although it included materials from the radif of Mirza
Abdollãh along with technical exercises, short compositions by Vaziri himself, and
also pieces by European composers such as Schubert, Beethoven, and Rossini,
and was clearly heavily influenced by Vaziri's musical studies in France and
Germany. Both this and his later publications (1933 and 1936, both published in
Tehran) were instruction manuals to be used in teaching (two for the târ and one
for the violin), as was the first publication of a full radif, that of Abol Hassan
Sabã, in the form of instruction tutors for the santur (c1965), violin (c1967), and
setâr (c1970) (all originally published in the 1950s).

31 It should be explained that notated radifs do have a formal musical structure, and whilst they are
generally of a descriptive nature, they can also serve as prescriptive notations.
Notations and sound recordings of *radifs* have been published for particular reasons, evidence of which can be partly seen in the publications themselves. Thus, whilst Sabã's *radif* was intended primarily as a learning aid, that of Mussã Ma'rufi, published by the Ministry of Fine Arts (Barkeshli and Ma'rufi 1963) was the result of a government incentive to publish a "definitive" *radif*. Many musicians at the time felt that there was a need for such a publication and that it would be a means of preserving the musical heritage of the country, and this lavish volume is often regarded as the most complete published version of the *radif*. Although less "instrument-specific" than the publications of Sabã, it is nevertheless best suited for the *tār* (or *setār*), and tunings for this instrument are given at the beginning of each *dastgāh*. The history of this publication is interesting for what it reveals of the tension between the concept of the one authentic *radif* on the one hand, and the many extant individual versions on the other.

The Ministry of Fine Arts wished to publish a definitive version of the *radif* which might be judged as representative of the tradition, possibly regarding unanimity and standardisation as being in keeping with a "modernised" nation. The preface of the book describes how several prominent musical figures were gathered in order to agree over the contents of this publication: Ali Akbar Shahnâzi (son of Aqã Hossein Qoli), Abol Hassan Sabã, Nur Ali Borumand, Ahmad Ebãdi (son of Mirzã Abdollah), Mussã Ma'rufi, and Roknedin Mokhtâri. As one might expect, consensus was not reached, and Ma'rufi was eventually asked to provide the version for publication (significantly, these details are only given in the Persian and not in the French version of the Preface to the book). No further information on the specific sources of this published *radif* is given in the book, but Ma'rufi himself in a critical open letter (1964) printed after the publication of the book, describes his *radif* as the fruit of thirty years work. He expresses disappointment that the various sources for the *radif* are not acknowledged in the book, and goes on to provide the following information about it, none of which is given by writers such as Zonis (in her 1964 review of this publication), Nettl, or During when discussing this *radif*. The basis of this published *radif* as described by Ma'rufi, is that of Darvish Khãn, his first teacher of *tār* (and pupil of Mirzã Abdollah and Hossein Qoli). This version was transcribed by Ma'rufi and then amended and added to over many years as he encountered the version.
of Mirzā Abdollāh’s and Hossein Qoli’s radif as transcribed by Vaziri, and Hedāyat’s transcription of the radif as played by Mehdi Montazem al Hokamā. This radif is thus a synthesis of a number of different versions, both notated and also within the oral tradition, and all derived from the same line of musicians. Unlike the teaching radif of Sabā, which only includes a few central gushehs in each dastgāh (and which was part of an attempt by Sabā to make the radif more accessible to his students), Ma’rufi’s radif aims to be as comprehensive as possible, a fact which is seen in its length (there are 471 individually named sections for the twelve dastgāhs), to the point of including materials which might not normally be regarded as being part of the radif (Nettl 1987:7; see Chapter Four, Footnote 88). Indeed, it is interesting that the accessible length and nature of Sabā’s radif have made it better known in the culture at large than the more specialised publication of Ma’rufi.

Another published radif, that of the singer Mahmud Karimi (whose main teacher was Abdollah Davāmi), recorded for the Iranian government in the mid 1970s, includes both sound recordings (as sung by Karimi himself) and transcriptions of the music carried out by the Iranian musicologist Mohammad Taghi Massoudieh (Massoudieh 1978). This is the radif which was taught by Karimi at the University of Tehran and at the Markaz-e Hefz o EshāeIand (like Ma’rufi’s version of the radif), this publication also endeavours to present a comprehensive version of the repertoire (comprising 145 numbered musical units). However, the highly detailed and "descriptive" nature of the transcriptions render the notations, at least, more useful for scholarly study than for the teaching context. As noted above, a transcription of dastgāh Shur from the radif of Davāmi is included in an introductory text (in French) by Lotfi (1976), and it is interesting that this version differs in a number of ways from that sung by Karimi.

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32 A sound recording of this radif with Soleymān Ruhafzā playing the tar was also made (probably in 1959-60), and is introduced by Ma’rufi himself (see Chapter Four, Footnote 94; see also Nettl 1987:78).

33 Another grievance expressed by Ma’rufi (1964) was the prohibitive price of the 1963 publication and the fact that it was published in limited numbers. This has, as he predicted, made this radif less accessible to many people, although in retrospect, has not proved to be a significant factor, and has certainly not diminished the importance of this publication.

34 During (1984a:128, and in interview) claims that, according to Karimi, the gushehs presented in this publication form only a small part of his total knowledge of the repertoire.
There is an important distinction within the tradition between *radif-e sāzi* (instrumental *radif*) and *radif-e āvāzi* (vocal *radif*), which differ in some respects from one another, whilst sharing essential aspects of each section of repertoire. Moreover, whilst musicians playing plucked and struck stringed instruments with a decaying sound quality (*tār*, *setār*, and *santur*) generally learn *radif-e sāzi*, those playing instruments with a sustained sound quality such as *kamāncheh* (bowed spike-fiddle) and *nei* (end-blown flute) usually learn *radif-e āvāzi*, since these instruments are more closely associated with the voice than with the other stringed instruments (these musicians may also learn *radifs* intended specifically for their instrument). Thus, an instrumental-vocal divide such as that outlined by Nettl in his discussion of the rhythmic differences between instrumental and vocal *radifs* (1987:104) may not be appropriate in this context. Moreover, differences in performance may be somewhat blurred by the fact that *tār*, *setār*, and *santur* players also commonly learn the vocal *radif* in the course of their training.

Among the *radifs* generally available as sound recordings, one of the most important is that of Mirzā Abdollāh as taught by Nur Ali Borumand to a large number of present-day musicians. This *radif* was recorded by the Iranian Radio and Television Organisation in 1972 with Borumand playing the *tār*, and although it contains fewer *gushehs* (a total of 249) than that of Ma'rufi and is thus generally considered to be less complete, it is claimed by many to be more "authentic" (During 1984a:128, 1991a:62-63). Borumand's importance lies in the fact that he studied with a large number of musicians who were in direct receipt of the *radif* of Mirzā Abdollāh (his teachers are listed in During (1991a:62) and Nettl (1987:142-3); see also Figure 2 below). Moreover, his main teachers, Esmā'īl Qahremani and Haji Āqā Mohammad, were among the most highly regarded of Mirzā Abdollah's pupils, and Qahremani in particular, is said to have known his master's *radif* better than any other of Mirzā Abdollah's pupils. The *radif* which Borumand studied intensively with Qahremani for a period of about twelve years (During op.cit.:63), is therefore considered by many to be the version

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35 Whilst Caron and Saf'vate mention a recording of Borumand's *radif* in their 1966 book (pg.117), no further details are given, and it is unclear whether this recording was generally available at the time, particularly since no other sources refer to such an early recording of this *radif*. It is known that in the mid 1960s, Borumand allowed individual scholars - namely Tsuge, Nettl, and Blum - to record parts of his *radif*; and transcriptions of some of this material can be found in their publications (see, for example, Tsuge 1974:402-45. Some of Tsuge's transcriptions can also be found in Zonis 1973:50,70)
closest to that of Mirzâ Abdollâh's original, particularly since the route of transmission through Qahremâni and Borumand was not affected by Darvish Khân's attempts to popularise the tradition (Darvish Khân having been Ma'rufi's main teacher). Whilst this radif appears not to have been published during the 1970s (neither Nettl [1987:8-9] nor During [1984a:128, 1991a:62-3] are specific on this point, but certainly this radif was unpublished at the time of publication of Zonis's book [1973:65]), cassette recordings have been in general circulation since this time. More recently, a notated version of the radif taught by Borumand, transcribed by Jean During, and accompanied by the cassette recordings, has been published (During 1991a). Borumand's influence as a teacher is an important factor in the significance of this radif in the tradition, and his rather idiosyncratic attitude towards the musical tradition will be discussed later in this chapter (and in Chapter Three).

A further recording is a set of ten long-playing discs published in 1976, under the supervision of Kâmbeez Roshanravân, by the Institute for the Intellectual Development of Children and Young Adults (Kânûn-e Parvâresh-e Fekrî-é Koodakâû va Nowjavânnân). This is a recording aimed at the general education of the public (rather than the direct teaching context) and, unlike the other published radifs, includes introductory notes on the musical system (both in and in English). Nettl includes it in the category of radif, describing it as a "composite radif" (1987:9), whilst During does not mention it at all. It is close to Ma'rufi's radif (although much shorter in the number and length of gushehs), but also includes material from the radif of Borumand. This publication differs from the other recorded radifs in various ways. For example, it features a number of musicians (several of whom were pupils of Borumand), functioning at the same time to introduce listeners to the sounds of different instruments. In addition, rather than gushehs being presented in succession from the beginning to the end of the dastgâh as is usual in other radifs, the first few gushehs of a dastgâh are played individually, and then combined in order to demonstrate how musicians move from one gusheh to another. Subsequently, the next few gushehs are

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*Whilst the list of Borumand's teachers given by Nettl (1987:142-3) includes both Darvish Khân and Mussá Ma'rufi, Darvish Khân was in fact Borumand's first teacher of târ, and his influence in terms of Borumand's knowledge of the radif was, it seems, minimal. Similarly, the period of study with Ma'rufi was relatively short, and fairly early on in Borumand's career.*

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presented individually and then combined in the same way. When all of the gushehs have been introduced, there is a complete rendition of the dastgâh, but this is usually short and only includes a few central gushehs. To the extent that this recording represents a consciously abbreviated "compilation" from the radifs of different masters, rather than being the version of one particular master, it might be regarded as being rather untypical. However, since any version of the radif is in reality a consolidation over time of radifs learnt from different masters, this recording is in fact more representative than it might at first appear. Thus, whilst the inclusion of this recording in the category of "radif" is perhaps debateable (being somewhat on the periphery of the "mainstream"), it is nevertheless of interest and has been included in the analyses of Chapters Four to Seven.

Both Nettl (1987:6-9) and During (1984a:127-9) list a number of other sources for studying the radif, whether simply lists of gusheh names in publications, transcriptions, or sound recordings such as those by Forutan and Hormozi, played on the setâr (1972) (and described by During as "... free radifs, that is to say less strict" [1984a:128], although it is unclear in what respects they are "less strict"), and the radif of Hossein Qoli as recorded by his son, Shahnâzi, on the târ. In addition, there are a number of sound recordings which are closely related to those listed above by way of connection through teaching. For example, a version of the radif not mentioned by During or Nettl is that of Mirzâ Abdollah as played by the santurist Majid Kiâni and published as five cassettes with an accompanying booklet (Kiâni 1987). This radif is very close to that of Kiâni's main teacher, Borumand. A more recent publication, by another student of Borumand, Hossein Alizâdeh, is also very close to the radif as transmitted by his master, and is of great interest for its inclusion of analytical discussion of the music (Alizâdeh 1992; this publication will be discussed briefly in Section 2.3.1.6). During's suggestion that there may be other, as yet undiscovered versions in private collections (1984a:129) may well be true, and it will only be when such links in the chain between Farâhâni and contemporary musicians are uncovered that scholars can begin to suggest a more complete history of the radif.
2.2.5 *Radif as "Model", Radif as "Framework"

The *radif* is the musical structure which underlies improvisation in Persian classical music, and to this extent is generally regarded as being the "framework" or "model" for creative expression. However, it is important to further explore the meaning of "framework" in the context of this music, and to examine how musicians conceptualise the *radif* as a basis for creativity. Among the four main types of model underlying creative improvisation in music suggested by Lortat-Jacob (1987b:47, mentioned in Chapter One), the *radif* would seem to belong to the second category, the "modèle-formule/modèle-forme". This is clear enough - the *radif* is indeed the main "model" or "prototype" in the performance of this music. But are "model" and "framework" the same thing, and if not, to what extent can the *radif* be regarded as both a "model" and a "framework"? It should be noted that questions pertaining to the identity of the "framework" on which Persian music is based, and its relationship to performance are not commonly discussed within the culture, and the following attempt to clarify what might be understood by the term "framework", and to highlight the problems involved in identifying such a structure, is thus an ethnomusicological abstraction.

A perusal of dictionary definitions suggests that the word "framework" implies a somewhat skeletal structure, an outline, whereas "model" implies an extant, exemplary version of something. As suggested in Section 1.3.5 (Chapter One), therefore, "model" would seem to indicate greater density and audibility than "framework". Whilst in English, there is a subtle but important difference between the two, Lortat-Jacob's use of "modèle" as a blanket term suggests that the mapping of terminology in French is slightly different (although he does also use the term "cadre" in discussing the [particularly temporal] framework of a piece of music). It should be stressed that the focus on the English language at this point is because this matter relates as much to general issues of ethnomusicological methodology as to the specific music in hand. Equivalent Persian terminology will be discussed below.

The term "framework" would seem to imply a set of core features which are fundamental to a particular piece of music and which are elaborated in performance. Whilst such a "core" or "nucleus" of essential material is certainly
present within each gusheh in the radif, it is never played in isolation or discussed as such by teachers. The "core" elements of any gusheh (that is, musical features which are heard in every rendition of a particular gusheh and which are essential to its very identity) are always learnt with some degree of elaboration. Whilst the radif is indeed the basic model for improvisation, it appears that the "framework" of the music actually exists at another level: this somewhat abstract but fundamental framework for any section of the repertoire is embedded within each gusheh as the essential, core features of that gusheh. Nettl has commented on the absence of a clear framework in this music and the elusive nature of a central "core":

In contrast to jazz (in which a specific series of chords or a popular tune, either of which can be performed in isolation, is the basis of the improvisation), there is difficulty in isolating models upon which improvisation is based. That models exist we must take for granted. But they seem ... hardly to be accessible in audible form. (with Foltin 1972:12-13)

Thus, whilst improvisations contain much material that is not found in the radif (although usually derived from or related to it), the reverse is also true: the radif contains a great deal of musical material which is not necessarily heard in performance. One way of analytically isolating the "core" features of a particular gusheh is to compare several different versions of the same gusheh, whether in performance or in radif, and to extract the body of common material, a method which will be used in the analyses of Chapter Five. Indeed, since students are encouraged to learn a number of radifs during training (see below), it is possible that similar cognitive processes may be at work as musicians "internalise" the central features of each gusheh. Farhat uses the same method to identify what he describes as the "... basic melodic formula ..." of a gusheh, this being "... the basis for improvisation ... arrived at after analysis of numerous improvisations ..." (1990:29), although it is unclear whether these formulae only include material shared by all of the analysed versions of a particular gusheh, and if not, what criteria were used to decide what should be included in each formula.

Thus, at one level of understanding, the radif is the model for musicians' improvisations, but within this explicit model lies an implicit, abstract "framework"
of essential elements which can only be isolated through analytical means. From this perspective, the "framework" of Persian classical music corresponds most closely to Lortat-Jacob's fourth category, the "model to be found" (1987b:48). However, Lortat-Jacob suggests that one should be wary of using the term "framework" (he uses the word "modèle") unless these shared "core" elements are shown (through discussion with musicians) to play an important role in the processes of improvisation. The question of the extent to which Persian musicians are aware of, and able to discuss, such processes will be discussed further in Chapter Three.

Understanding the relationship between radii' and improvisation, which is central to a study such as the present one, requires a fairly precise knowledge of the model (or models; and implied framework) which underlies any creative performance. However, identifying frameworks and models involves a number of complex issues. For example, if one considers the concept of framework, whilst each gusheh has certain essential features, musicians differ in the degree to which other material from the radif is included in performance. A comparison of a number of performances of a particular gusheh may allow one to isolate the most basic kind of framework (that which all versions of a gusheh hold in common), but musicians may also choose to use other material from the radif in their performances. Since musicians generally learn a number of different (but related) radiifs in the course of their training, the playing of each individual will inevitably be based upon a unique fusion of the various radiifs that he has learnt: a "model" which exists only in the mind of the musician, possibly below the level of consciousness.

2.2.6 Radiifs as a Model Within a Broader Model

In contrast to the above discussion, which presents the radif as being the model underlying performance in Persian classical music, it is also possible to understand the model for performance as being broader than the term radif generally implies. This comes partly from the author's own perceptions as well as from comments made by musicians in interviews. The learnt repertoire of the radif is only a part (albeit an important part) of the information upon which a
musician draws in the performing situation, when he is at the centre of a dynamic complex in which many factors play a role. For example, both the socio-cultural setting and the musical culture as a whole bear on the realisation of music in performance. Much of this information has been assimilated by the musician since childhood, but is in a constant state of change over time, for example as a result of socio-cultural changes, which in turn affect the performance process. The whole complex of information on which each performance is based might be referred to as the "performance model", and would include the previous musical experiences of a musician, both as a result of listening to other musicians and also through feedback from his own performances. Thus, a musician's concept of a particular piece of music is formed not only from the piece as learnt from his teacher(s), but also from the many versions that he has heard and/or played. As During states:

... whatever is the nature of the model, most traditional improvisations extend the more or less conscious synthesis that the musician brings about from all the improvisations that he has heard. (1987b:34-5)

Moreover, musicians' listening experiences may come not only from the classical music, but from a wide range of other musics, both Iranian (folk, popular, etc) and non-Iranian. The important role played by informal listening experiences in shaping the "ear" of musicians and non-musicians alike will be discussed below.

In performance, these background factors interact with the musical repertoire of the radif as learnt from one or more teachers over many years of training. In addition, each performance context forms its own unique dynamic situation. Qureshi (1987), for example, discusses the effect of context on the performance of qawwali, the music of sufi gatherings in Pakistan and North India, distinguishing between what she terms "occasion" and "event" - the former representing the norms of a particular instance of any one situation (for example, the qawwali assembly) and the latter representing a specific instance of that context (a specific qawwali assembly at a particular time and in a particular place). In the case of Persian classical music, aspects of occasion might include the setting and the reason for the performance (for example, recording session, formal concert, informal gathering), whilst aspects of event might include the
identity and mood of the audience, the performer's state of mind, the time of day, and the relationships between the musicians in the case of a group performance. The effect of context, and particularly the rapport between musician and audience, is obviously highly important in a music where a certain degree of creative spontaneity is expected in performance. In Chapter One, the effect of immediate audience response on the performing musician was suggested as one important difference between creativity which takes place in writing and that which takes place in performance. Although changing performance contexts during this century have to some extent broken down the subtle and intimate communication between musician and audience, and thus perhaps reduced the role of the listener in the creative process, audience feedback is still important to Persian musicians.

The above points are illustrated in Figure 1. The background level, comprising the socio-cultural setting and the general musical culture, interacts with the performer's knowledge of the radif and other musical experiences, as well as with their understanding of the particular performing event, to effect decisions concerning material to be presented and procedures for presenting it. However, the situation is one of extreme complexity, since not only are many of these factors themselves in a state of flux over time, but they also interact with one another in a number of different ways. For example, changes in the general musical culture not only affect each performance situation directly, but indirectly through changes in music that the musician hears around him, changes in audience expectations, and so on. In addition, there is a continual feedback from each performance situation which may slightly alter the cognitive "performance model", and thus affect future performances. For example, an improvising musician may create spontaneous elements which, if successful, may eventually become absorbed into the performance model, and even become idiosyncratic of that musician, no longer spontaneous, but available to be used in future performances. Moreover, the way in which a particular performance proceeds will depend upon the course of the performance up to that point, and will be influenced by aspects of occasion and event. Thus, each performance feeds back into and slightly alters the "performance model", which in turn will affect the
Figure 1 - Factors Involved in the Performance of Persian Classical Music
ongoing and future performance processes.37

To the suggestion that listening to other musicians can form a "model" for performance, Meshkâtiân responded:

You wouldn’t call this radif, but it has a very important role to play ... in my opinion anyone who has listened to and learnt all of the good moulds/models (olgu) of Iranian music differs greatly from the person who, however creative they may be, has not listened to these. (Interview 20.7.92)

Similarly, During states that:

Apprenticeship ... takes place through the study of the repertoire-type (radif) ... as well as by the imitation of the improvisations of the masters and by the comparison of different radifs ...(1987c:138, italics added)

Thus, the performance of Persian classical music depends on a number of interrelated factors, from the all-pervasive level of the general culture to the specific information of every performance situation. Linked to all of these and at the heart of each performance is the ever-changing "performance model" in the mind of the musician, and the relatively stable repertoire of the radif which underpins it. It might be speculated that in the past, the repertoire taught by a master to his pupils would have been close to his "performance model", and that both would have been subject to the various external influences mentioned above. With the canonisation and relative standardisation of the radif in the course of the present century (particularly with the advent of notation and sound recording, see Section 2.3.1.4), it seems likely that the repertoire taught by musicians today is less subject to change than the personal "performance model".

During (1987b:38) suggests that from the point of view of the audience of any improvised music, since they cannot have detailed knowledge of the model which is in the mind of the performer (that is, the "performance model" which is always

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37 See Berliner (1994, for example pp495-6), for similar observations with regard to the processes of creation in jazz performance. It would seem likely that musicians in all traditions work from a cognitive "performance model" which represents a knowledge base which has been built up and developed over many years of music-making, and which is subject to continual change.
changing according to the experiences of the musician), that they measure performances against an "ideal model", formed by the continual hearing of different performances. Each new performance of a piece consolidates and changes the "ideal model" of that piece:

... each performance brings in its turn, its contribution in terms of building on and imperceptibly transforming the ideal model. Traditional does not thus mean static. (During 1987a:21)

Moreover, in this way, the creation of tradition can be seen as a collective process (as suggested in Chapter One) with each new interpretation of the repertoire contributing to the ongoing identity of that repertoire. Thus, "radif" might be understood as existing at a number of levels: an "ideal version" in the general musical culture; the "performance model" from which a musician works in creative improvisation; and a specific repertoire as transmitted to succeeding generations of pupils.

2.2.7 Persian Terminology, Persian Concepts

The preceding discussion has considered some of the ways in which the repertoire of the radif might be understood as a basis for creativity. But what of the Persian words used to express these concepts, and what do they reveal of the conceptualisation of musicians? Much of the non-

 Persian language literature on Persian classical music uses (mainly) western terms without exploring the corresponding terminology. Thus it was mainly in conversations with musicians that such terminology was encountered by the author, and as in English, much of this was not specialist musical terminology, but taken from everyday language.

Meshkātiān, for example, used the word olgu to refer not only to the radif, but to everything which might form part of a musician's "performance model" as described above (Interview 20.7.92). In this context, olgu corresponds most closely to the English "mould" or "model", but also to words such as "example" and "sample" (another word meaning "mold", qāleb, was also used by Berenjiān to describe the radif (Interview 7.12.89)). Olgu is more general in meaning than
the word *châhârchooob*, which was used by During (Interview 8.12.90), Pâyvar (Interview 8.11.90), and also Berenjîân (Interview 18.9.90) in discussing the role of the radif. *Châhârchooob* corresponds most closely to the English "framework" or "structure", but is used by Persian musicians to refer to the radif itself, much in the way that the word "model" was used in Section 2.2.5 (and in contrast to the definition of "framework" in that section). Thus, in a musical context, *olgu* can refer to the general musical tradition upon which the musician can draw as well as to the actual repertoire of the radif, whilst *châhârchooob* would usually refer specifically to the radif itself. Berenjîân used the word *zeerbanâ* ("foundation", Interview 10.11.89) when discussing the role of the radif, and which in a non-musical context generally refers to the foundations of a building. Similar words used by musicians to refer to the radif included *assâs* ("foundation", "principle", Pâyvar, Interview 8.11.90), *pâyeh* ("foundation", "basis", Pâyvar, Interview 8.11.90), and *asl* ("foundation", "basis", Berenjîân, Interview 7.12.89). Alizâdeh used the word *johar* ("substance", "essence") to refer to the general musical knowledge from which musicians draw in creative performance (Sarkoohi 1989:35).

However, whilst terms such as these were used by musicians to describe the role of the radif and the general musical culture in performance, identifying terminology for the abstract framework (or core of common material) within each gusheh proved more difficult. As mentioned earlier, such an "underlying framework" is not explicitly discussed within the tradition, not even in the teaching context. The absence of discussion of the internal structure of the radif in teaching - itself perhaps a result of, and in turn perpetuating, the dearth of accompanying terminology - suggests that this level of conceptualisation may not be significant for the Persian musician. However, the existence of teaching radifs at varying levels of complexity (with essential elements maintained, see Section 2.3.1.2 below) suggests the presence of such conceptualisation in the music despite the absence of terminology. There is clearly a mutually influencing relationship between technical terminology and concepts in any musical tradition, and as will be discussed below, as teaching methods change (in conjunction with other changes in the general culture), accompanying terminology may also develop in line with (and in turn influencing) conceptual changes.
2.2.8 The Significance of the Radif

The radif thus clearly plays an important role in Persian classical music today, providing a basic repertoire for the classical music and a starting point for creativity. Moreover, the importance of the radif as a cultural symbol, although only of indirect relevance to this study, should also be mentioned. Nettl, for example, suggests that the radif itself symbolises what is most essential in Persian culture (1987:160-1), and Modir (1986b:72-5) also discusses the symbolic importance of the radif. Since Persian classical music is a relatively specialised domain, few individuals who have not been musically trained are able to identify specific sections of repertoire. Individuals' immediate identification with the sound and ethos of the music, regardless of ability to identify sections of repertoire is therefore very interesting. The radif is known by name if not by content as embodying the tradition of Persian classical music. At the same time, however, the growing importance of the radif in this century together with the concept of it as an unchanging "authentic" repertoire (and which relates to socio-cultural changes, see below) has deeply affected the perceptions of "tradition" by both musicians and non-musicians.

Whilst much of the literature stresses the centrality of the radif to this music, a number of writers and musicians interviewed presented ideas closer to those expressed in Section 2.2.6 regarding the importance of the general musical culture in shaping performances. For example, whilst During has stressed the importance of the radif in various publications, he expressed a slightly different opinion in interview:

I would say that there is a mainstream of - we shouldn't call it radif - but of musical structure, motifs and gushehs. Everybody more or less follows this mainstream. And within this main current there is a small line which is more or less didactic, which is the radif. Musicians learn the radif, they learn the sequences, they learn the modulations, the models and so on; [but] ... after they have taken their examination in radif [referring to university students], they follow the mainstream, and when they perform Segah, they perform it ... according to the main trends. (Interview 8.12.90)

The implication is that (as discussed earlier) once a musician has played the radif
for a number of years, it becomes cognitively embedded such that it inevitably informs all performance whether or not the musician consciously applies it. Moreover, there is the suggestion, also voiced by Meshkātiān, that the educational value of the radif lies as much in the process of learning as in the musical material being taught (Interview 20.7.92). In his teaching, Meshkātiān claimed to emphasise quality above quantity, preferring his students to learn two dastgāhs thoroughly rather than twelve dastgāhs in the same period of time without gaining a true understanding of the music. Once the understanding is there, he states, a musician can easily learn the rest of the repertoire.

Elsewhere, During warns against overestimating the importance of the radif, "In sum, the radif is nothing other than a model aimed at pupils, and one shouldn't overestimate its value ..." (1984a:127). The radif is clearly central to Persian classical music, both in its symbolic importance and in its musical structures. The preceding discussion has argued that the radif forms a model for creative performance and contains within it an abstract "framework" comprising elements which are essential to the identity of each gusheh. At the same time, however, the radif can be regarded as being part of a broader "performance model" for each musician. Exploring the relationship between a particular performance and the model or framework which underlies that performance, whilst a relatively complicated process, is nevertheless central to understanding creativity in this music. Creativity can only be understood in terms of the structures on which it is based, however elusive such structures may prove to be. At the heart of such an exploration is the question of how musicians use their cognitive and spatio-motor understanding of the musical structures to create performances which, whilst being unique, at the same time lie within the bounds of acceptable variation for this music.

2.3 Learning Processes

Human beings are unique among living creatures in producing a complex of material and non-material constructs and processes known as "culture" which need to be transmitted from generation to generation in order to survive (and indeed, in order for humans to survive). Central to any study which seeks to understand
musical creativity lies the question, what does it mean to "know" a musical tradition and to be able to create within that tradition? And one of the most revealing places to search for an understanding of the musical "knowledge" of an individual is in the processes by which that knowledge (as one aspect of culture) is acquired. This may take place in formalised settings, with acknowledged teachers passing on specialised knowledge to a relatively small number of students, or in the informal setting of everyday musical experiences. It is here that individuals come to understand and assimilate the basic knowledge of a music including information concerning the limits and "rules" of creativity. What is transmitted is a complex of sound structures, gestures, and ideas about music which together form the musical knowledge of an individual. It is only through this means that the past can be reconstructed in terms of the present in the continual process which characterises all music.

Many ethnomusicologists have recognised the insights that can be gained through studying processes of musical transmission, Merriam (1964), Herndon and McLeod (1979) and Nettl (1983) each devoting a chapter to learning processes in different musics. Blacking, in particular, has focused on the ways in which children learn to perform and listen to music (1967, 1973, 1990). Whilst this study is not specifically concerned with the ways in which children acquire musical knowledge, this is clearly an important area of interest, since as with language, the foundations of musical knowledge and creativity are laid during childhood.38 In the words of Harwood:

... the ultimate embodiment of a society's historical construction occurs as it is transmitted to succeeding generations, from adults to children. Likewise, the richest data about the growth of individual creativity and the construction of meaning lie in the social and cognitive development of children. (1987:508)

Whether or not formalised systems of musical schooling exist, informal learning takes place continually in all societies through the habitual hearing of music (intended or otherwise), during which musical structures and processes are

38 The reader is referred to Hargreaves (1986) and Dowling (1988) for discussion of music acquisition by children from the perspective of music psychology. A publication which considers a wide range of issues relating to the effect of music on child development is Wilson and Roehmann (1990).
"subconsciously" internalised by individuals. A number of studies have focused on the importance of informal learning processes in the development of an individual's knowledge of a music and their ability to create. Baily and Doubleday (1990), for example, with reference to Afghanistan, discuss the important role played by children's experience of the informal music-making of women (and their imitation of this music-making) in the process of enculturation. Similarly, Berliner regards the "jazz community as an educational system" (1994:36-59) for jazz musicians, where informal listening and observation is crucial to the learning process, and where, until relatively recently, formal education was not available to musicians, and still to some extent seems to run contrary to the very ethos of the music (see also ibid.:105-110).

Since the early 1970s, the Hungarian music psychologists Sági and Vitányi have carried out research into various aspects of creative musical ability. Their "Experimental Research into Musical Generative Ability" (1988; see also 1971) was based on the hypothesis that all human beings (whether trained musicians or not) are capable of musical creativity, and that this creativity is based upon the musical structures with which they are most familiar. The initial research (1971) focused on a group of university students, and was subsequently expanded (1988) to involve, firstly, twenty Hungarian peasants from a single village, and then two hundred and twenty individuals, who were categorised according to age, occupation, and level of musical training (if any). A final category consisted of non-European students in Budapest. The subjects were given various tasks, including that of improvising melodies to a number of poetic texts and to simple harmonic progressions, and completing melodies in different modes. As one might expect, the improvisations produced by the subjects demonstrated clear relationships to the musics with which they were most familiar and Sági and Vitányi thus concluded that musical creativity arises directly from known musical experiences. Since the majority of the subjects had no musical training, their knowledge clearly came from music which they had heard or participated in informally rather than through formal instruction (see Jackson 1989 for a similar project in two London schools).

The findings of this study lend weight to the idea that in the process of listening to and experiencing music from childhood, the human mind assimilates and
analyses musical structures thereby gaining an understanding of the implicit "rules" in a manner which allows the subsequent re-use of those "rules" in generating new music. Indeed, as suggested earlier, there may be parallels to be drawn between the processes of informal music learning and the ways in which children are able to abstract the grammar of the spoken language which surrounds them, and to re-apply this grammar in the continual creation of new, but grammatically correct sentences.39

2.3.1 Teaching and Learning Processes in Persian Classical Music

Since it is the *radif* as described above that forms the basis for creativity in Persian classical music, exploring the relationship between the two - how musicians get from the learnt *radif* to performance - will be one of the main concerns of this study. An important starting point, therefore, is a consideration of the processes by which the material of the *radif* and the techniques of improvisation are taught and learnt. It is perhaps here, at the heart of the musical tradition, that one can begin to understand how creativity takes place. There would seem to be a close relationship between a particular music and the methods by which it is taught: indeed how a music is taught is often as revealing as what is taught. Caron and Safvate (1966) and During (1984a) each devote a chapter, and the monograph by Nettl and Foltin (1972) a whole section, to a discussion of methods of teaching and learning in Persian classical music. Other publications also refer briefly to the teaching and learning processes and their importance to the musical system (Lotfi 1976, Sâdeghi 1971, Nettl 1983, 1987).

The processes of transmission in Persian classical music have inevitably been affected by the rapid social, political, and cultural changes which have taken place in Iran in the course of this century. Changes which have most directly affected music include the establishment of educational institutions for music; the expansion of the media with the opening of, first, radio and then television stations; the introduction of western notation; the availability of sound recording, initially on disc and then on what became the most popular medium of magnetic...
tape; and the establishment of public concerts, which in ethos were very different from the traditional intimate setting of music-making in private houses (or at court) for classical music. In addition, the tradition of the amateur classical musician gave way to that of the professional musician, who was more highly regarded than formerly, when public music-making was often the domain of individuals from the non-Islamic minorities, such as Jewish or Armenian musicians (often playing non-classical genres). At the same time, wider access to western music and the high status attached to it, combined with the view that traditional music was somehow incompatible with a rapidly modernising state such as Iran, all led to a decline in interest in Persian classical music in favour of the newly available forms of western music or westernised Persian popular music. In particular, the period stretching from the end of the nineteenth century up until 1979 saw the rise of a western-oriented middle class elite amongst whom western ideas were fashionable and western products were status symbols. The ways in which these various factors have affected the processes of transmission will be considered below.40

2.3.1.1 Teaching Contexts in Persian Classical Music

Prior to the early decades of this century, classical music was generally taught in the privacy of an ostād's home. This was consistent with an Islamic society in which attitudes to music (in particular as a profession) were, and still are, highly ambivalent. Much music-making, including teaching, was a private affair, and learning to play an instrument (there was little concept of a general music education) involved becoming accepted into the maktab ("school") of an ostād, and attending group or individual classes at his house. In 1868, the Frenchman Alfred Jean Baptiste Lemaire (b.1842) arrived in Iran, having been appointed by Nāsser-e Din Shāh to take charge of military music activities. Lemaire instituted a series of classes at the Dārolfounun school in Tehran, including instruction in

4 Chapter Three also includes discussion of the processes of change in Persian classical music, with reference to the concepts and practice of creativity. For further information, the reader is referred to the publications of Nettl, who has written fairly extensively on the subject of musical change in Iran (see, for example, 1978 and 1985). In addition, Klitz and Cherlin (1971) discuss musical change in the early 1970s, particularly in terms of music education, and Beeman (1976) considers a number of aspects of change, including the impact of an expanding mass media on the musical culture.

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both theory and instrumental practice, and this was the first form of
institutionalised music education in Iran. In 1918, the first music school was
opened in Tehran, under the auspices of the Ministry of Education (Vezārat-e
Ma‘āref), and initially called Madresseh-ye Musik. Ali Naqi Vaziri (1887–1979)
became the principal of the school in 1928, and the name was changed to
Madresseh-ye Musiqi-e Dolati. Vaziri was an army colonel who had received
musical training in both France and Germany and who was unequalled in his
endeavour to "modernise" Persian classical music (Zonis 1973:187). At the
Madresseh-ye Musiqi-e Dolati, pupils of secondary school age would study the
usual curriculum of subjects in addition to learning Persian music and also
western music theory, "... 'solfège' and notation, tār, violin and piano were taught
there ..." (During 1984a:29). This was the first public music school in Iran at a
time when most teaching was still taking place in its traditional setting: the homes
of teachers. In 1938, the school became the Honarestān-e Āli-e Musiqi, and began
to offer some teaching at higher education level.

At this time, both Persian and western music were being taught at the
Honarestān, and there were some moves during the 1940s to separate these two
strands of teaching into different institutions. The founding of the Anjoman-e
Doostdārān-e Musiqi-e Mellī (Society for National Music) in 1945 by Ruhollāh
Khāleqi, was an important step towards what eventually resulted in the
establishment of the Honarestān-e Mellī-e Musiqi (National Music Conservatory)
in 1949. This school specialised in the teaching of Persian classical music (as well
as western theory and notation), and remained the main teaching institution for
Persian music in Iran until the 1960s (after 1949, the Honarestān-e Āli-e Musiqi
focused solely on the teaching of western classical music). Khāleqi became the
first principal of the Honarestān-e Mellī, and many of the musicians who taught
there during the 1950s and 60s were former pupils of Vaziri. These included
Khāleqi himself (setār), Abol Hassan Sabā (violin, setār, and santur), Ali Akbar
Shahnāzī (son of Āqā Hossein Qoli, tār), Mehdi Meftā (violin), Hossein Ali
Mallāh (violin), and Mussā Ma’rufi (tār) and his son Javād Ma’rufi (piano). By
the 1960s, the Honarestān had expanded, and many of the musicians associated
with it recorded regularly for the radio. However, it still only catered for pupils
of secondary school age, after which aspiring students would have to seek out a
private teacher in order to continue their musical studies.41

It was not until the Music Department at the University of Tehran was opened in 1969 that musical studies in Persian classical music were available at higher education level. At the University it was possible to study for a music degree, specialising in either western or Persian music. Pupils wishing to train as a classical musician in the 1970s would typically start playing an instrument at an early age, either with a private teacher or at the Honarestān-e Melli. Subsequently, students could enter the University, and if they chose to specialise in Persian music, would study under a series of masters teaching radif and the art of accompanying a singer (javāb āvāz), in addition to other subjects such as harmony, counterpoint, and music history. In the early 1970s, masters such as Borumand (tār), Karimi (voice), Asqar Bahāri (kamānčeh), and Dāriouche Safvate (setār) taught at the University, superseded in the late 1970s by a number of their pupils, such as Mohammad Rezā Shajarian (voice), Mohammad Rezā Lotfi (tār), and Alizādeh (tār and setār).

In 1971, the Markaz-e Hefz o Eshāeh-ye Musiqi-e Mellī (Centre for the Preservation and Propagation of Iranian Music) was opened, under the auspices of the Iranian Radio and Television Organisation. The aim was to gather together musicians not involved with the radio (and therefore not generally known by the public) to create a centre of research and teaching in order to preserve the tradition of Persian classical music. Dāriouche Safvate was the director until 1980, and in the early years, masters such as Borumand, Said Hormozi (tār), Yusef Forutan (tār), Dāvāmi (voice), and Karimi taught at the Markaz. Younger musicians such as Lotfi, Alizādeh, Meshkātīān (santur), Kiāni (santur), Dāriush Talāi (tār and setār), Jalāl Zolfonoun (tār and setār), and Parisā (female voice), many of whom were talented students at the University of Tehran (Zolfonoun was in fact a lecturer in music at the University), were invited to study, carry out research, and later to teach there, and the Markaz was indeed closely associated with the University.

41 Behroozi (1988:529-559) presents a thorough history of the main music education institutions in Tehran, and most of the information given above is based on this publication. Other sources do provide limited information (see, for example, Zonis 1973:186-193 and During 1984a:29-30), but these are sometimes inaccurate and contradictory.
After the 1979 Islamic Revolution, the situation changed somewhat, as musicians came under renewed pressure in the new Islamic state, particularly at the time of the Iran-Iraq war (1980-88) when much public music-making was banned. However, with the Revolution also came a renewed interest in the traditional culture of the country, in contrast with the fascination with the West which had characterised the pre-Revolution years. Thus, there has been a dramatic rise in the number of amateur musicians learning Persian classical music. Pâyvar, for example, reported a significant increase in the number of students learning *santur* with him after 1979 (Interview 8.11.90), and Alizâdeh also discusses the growing interest in Persian music, particularly among young people, since the Revolution (Sarkoohi 1989:33). The Music Department at Tehran University was closed shortly after the Revolution, but was re-opened in 1990, and in addition, there is now a Music Department at the expanding *Dâneshgâh-e Ázâd* (University) in Tehran (Meshkâtián, Interview 20.7.92). Meshkâtián also reported that the *Honarestân-e Mellî* is now open, as is the *Markaz-e Hefz-o Eshâeh* (Interview 20.7.92).

Despite the centralisation of music education in the capital, there are some teaching institutions in other cities, although relatively little has been written about these. It is known that in 1927, Abol Hassan Saba was asked to head a newly-established branch of the *Madresseh-yé Musik* in the town of Rasht in northern Iran, and this later changed name in line with its sister school in Tehran. During mentions that a number of music schools have been established in the provinces, although, like that in Rasht, these generally cater for children of school age, rather than study at higher education level (1984a:30). Whilst private lessons are, of course, available, it is difficult to gain a formal advanced training in the classical music outside cities such as Tehran, Esfahan, and Tabriz.

In this century, then, new formal institutions have existed alongside more

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42 For a discussion of the impact of the 1979 Islamic Revolution on music and musicians in Iran in the early 1980s, see During 1984b. Whilst there have been a number of important developments since the Revolution, the aspects of musical change considered in this study, both in terms of teaching and also in terms of the concepts and practice of creativity (to be discussed in Chapter Three) are largely rooted in socio-cultural changes which began in the mid-nineteenth century and which have continued up to the present day. As such, this study will include only limited discussion of specific musical changes since 1979. No doubt, in time, historical distance will enable scholars to assess the long-term effects of the Revolution on the musical culture of the country.

43 Although this institution is not a distance learning institution in the sense of the Open University in the UK.
traditional teaching environments. Whilst many masters, such as Pâyvar, do still teach in their homes, a large number have become attached to one or more state or private institutions. In practice, it is difficult to ascertain the extent to which this has affected the class situation itself. Indeed, it is possible that changes within the classroom have been as much determined by factors such as the use of notation, as by the change of setting (of course, the informality of the traditional context is to some extent lost). The most significant consequence of changing teaching contexts, however, has probably been in the changing aura of Persian classical music, a music which until the turn of the century was generally only heard (and taught) within relatively restricted circles. The increasing availability of music education in the course of this century (together with the expanding mass media and in particular the availability of relatively inexpensive sound recording from the early 1960s onwards) has brought classical music to a much wider audience. Moreover, the gradually improving status of musicians is partly attributable to the air of respectability afforded by the institutionalisation (and westernisation) of music education. Thus, by the 1970s, music had begun to gain acceptance as a subject of serious study and some of the respect which education has always commanded in this society was gradually extended to music, an art which has had very different associations in the past. Also of importance is the fact that many of the younger generation of Persian classical musicians today have passed through a system of higher education which has given them a much broader musical education and a greater awareness of many different types of music in comparison with their predecessors. This has had important implications in practice, as will be discussed below.

2.3.1.2 Teaching Methods in Persian Classical Music

Having established the broad context within which teaching takes place, the discussion will now focus on specific teaching methods. Some of those described by Caron and Safvate (1966), Nettl and Foltin (1972), and During (1984a) are no longer practised, but it is useful to compare them with current methods in order to consider why some aspects of teaching have changed whilst others have endured. Prior to this century, Persian classical music was taught entirely by rote, using imitation and memorisation. In the early stages, it appears that pupils were
required to closely imitate the playing of their *ostād* and memorise his *radif* precisely. This involved committing each phrase of the music to memory until, after many years of study, a student would be ready to draw on this memorised repertoire (often in more than one version, see below) in improvised performances.

According to Borumand (Nettl and Foltin 1972:19), individual teaching on a "one-to-one" basis was more usual than group teaching during his youth in the early part of this century. However, besides individual teaching in the generally understood sense, Shahnāzi, *ostād* of tār at the *Honarestān-e Mellī-e Musiqi*, used a method by which a pupil would have an individual lesson, during which time he would learn a short phrase. The pupil would then practise this phrase, either alone or with the help of a fellow pupil or one of the *ostād*’s assistants, whilst Shahnāzi saw another pupil. During this time, the pupil might notate the phrase or even record himself playing it. After about twenty minutes, he would return to Shahnāzi, who would hear him play the learnt phrase and who would correct any mistakes. At the next lesson, this phrase would be briefly reviewed before proceeding to learn the next phrase of the piece (During 1984a:31).

During describes a common technique of group teaching whereby an *ostād* teaches a phrase to a small group of students who respond by communally imitating the phrase that he has just played (Meshkātīn also discussed this teaching method, Interview 20.7.92). The *ostād* helps the students and corrects them when necessary. Each student is then asked to repeat the phrase individually. Borumand used this method when teaching the *radif*, as did Karimi, although he required students to sing in turn rather than together. In the case of Borumand, the fact that such groups comprised students playing a variety of instruments underscores the primary role of the *ostād* as a transmitter of the musical repertoire, rather than as an instrumental specialist. Moreover, whilst both Borumand and Karimi corrected pupils who played/sang material incorrectly, neither appeared to comment on the *manner* of students’ renditions. During suggests that whilst such teaching methods work well with a small group of two

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43 Recordings of lessons given by Borumand at the University of Tehran (recorded 15.10.68) and by Karimi at the Conservatory of National Music (recorded 2.1.69), both made by Bruno Nettl during his period in Iran in 1968-9, were made available to the author courtesy of Professor Nettl.
or three pupils, the main disadvantage of a larger group is that the amount of individual contact between student and ostād is reduced. Thus, whilst it is possible for students to learn the musical material, it is very difficult to absorb the style of an ostād by this method (ibid.:32). However, it would seem that one of the main advantages of group teaching over individual classes is that students hear not only many repetitions of the same phrase, but also the mistakes of their fellow students and the subsequent corrections made by the ostād. These are all significant for learning the boundaries of permissible variation in the music. Each student will bring slight variations to the musical phrase, and by hearing which variations are corrected by the ostād and which comprise "allowable variation", students learn the rules and boundaries of improvisation. It is interesting that Blacking, for example, used this very method whilst working among the Venda of South Africa, in order to elicit the rules of variation in their music:

On some occasions I made deliberate mistakes, and was therefore especially interested if I was not corrected: this would mean that I had sung an alternative melody which, though not that which my teacher knew, was perfectly acceptable according to the canons of Venda music (1967:33)

The same advantages and disadvantages outlined above apply to the group teaching method mentioned by Khatschi and described by Nettl:

... one method is for the teacher to give each of a group of pupils a particular bit of music to memorize (by playing it without the use of written music), and then to require them to teach these sections to each other. (Nettl and Foltin 1972:19, from Khatschi 1962:33-5)

It is interesting that all of the methods described above combine elements of both group and individual teaching. Thus, whilst the individual classes of Shahnāzi incorporate elements of group teaching, the various group methods also include some "one-to-one" teaching. It would seem that both individual and group teaching are necessary for learning Persian classical music: the former in order to absorb the style of the ostād, and the latter in order to understand the rules of variation.

Another important aspect of the learning process is that most musicians today (as
in the past) generally learn the *radif* (s) of a number of *ostād* (s) in the course of their training, ostensibly in order to increase their knowledge of the repertoire (During 1984a:126, Nettl and Foltin 1972:19). As a result, musicians are able to appreciate the subtle differences between these various versions of the repertoire and thereby reach an understanding of the essential features of the music, clearly an important part of learning how to improvise:

> With the aid of two or more models, the musician is in a position to grasp the essence of a mode ... from this synthesis his own interpretation or his own *radif* is born ... (During 1984a:126)

Whilst this suggestion that each musician develops his own *radif* may have been the case in the past (see discussion earlier), musicians today generally teach one of the standard versions of the repertoire, perhaps with slight modifications, rather than developing their own teaching repertoires.

Generally speaking, pupils are expected to learn the repertoire of the *radif* precisely, almost in the manner of a "pre-composed" text (which in some sense it is), and this is something which was particularly emphasised by Borumand in his teaching:

> ... students ... are expected to learn it [the *radif*] exactly, as if it were a set composition. (Nettl and Foltin 1972:19)

> ... [masters] demand of their pupils perfect memorisation of a unique model. (During op.cit.:34)

During, however, qualifies this statement by explaining that the study of different *radifs* requires strict adherence to different musical parameters. In the case of Borumand’s *radif*, for example, presenting the correct number of repetitions in a series of repeated notes or motifs is of utmost importance, whilst in other *radifs*, the exact rendition of ornamentation is stressed (ibid.). This implies (although During does not further elucidate on this) that Borumand’s *radif* perhaps allows a certain latitude with respect to ornamentation, a point which has interesting implications in view of Borumand’s reputation for demanding rigorous repetition from his pupils.
The radif is generally taught at three levels of increasing difficulty: radif-e moqadamati (or radif-e ebteda'i, "elementary radif"), radif-e motevaset ("intermediate radif"), and radif-e aali ("higher radif") (Meshkati脢n, Interview 20.7.92). The final stage corresponds to the level generally found in published radifs, such as those of Borumand and Ma'rufi. For the elementary radif, Meshkati脢n explained that teachers either simplify the material of the radif themselves and teach only the central gushehs, or that they use a simpler published radif, such as that of Sabã. He claimed that it is very difficult to master the intermediate radif without having first learnt the elementary one. During also describes how radifs were formerly simplified for beginners "... in a very interesting way, whilst maintaining the essential inflections and plectrum strokes." (1984a:30). This is important, emphasising as it does the essential core of material on which the identity of the radif rests, and which must be maintained despite the variation between radifs at different levels of complexity. During also states that even within a radif at one particular level of difficulty, more ornamentation could be taught to those students with greater ability. The existence of teaching radifs at different levels of complexity adds a further dimension to the ambiguity between the "one" radif and the multiplicity of radifs discussed earlier. Caron and Safvate also describe a three-stage process in learning, but one which differs somewhat from that described by Meshkati脢n, the final stage being the discipline of accompanying a singer (1966:191-3).

As suggested in Section 2.2.7, the fact that a radif may be simplified for beginners would seem to imply that musicians do indeed conceptualise the basic underlying "framework" of the music (that is, the most essential features of any gusheh - that which all versions hold in common), even though this may not be discussed by them. Presumably, some conceptualisation of the essential elements of a gusheh (that which must be maintained) is necessary in order to "simplify" the gusheh, although this may not be at the level of conscious awareness.

2.3.1.3 Learning to Improvise

The above discussion has considered how the radif - the central repertoire which forms the fundamental knowledge on which creative improvisation is based - is
transmitted from teacher to pupil. Beyond this, however, one of the interesting (and perhaps initially puzzling) aspects of the teaching of this music is that the ostād does not actually teach pupils how to improvise. He is largely concerned with transmitting a body of repertoire, and rarely discusses details of variation, interpretation, or improvisation which eventually become so central to the performances of his pupils. Not only is there little in the way of technical vocabulary with which such aspects of music-making might be discussed (as mentioned earlier) - indeed there is a strong feeling among many musicians that any such terminology would be incompatible with the spirit of the music - but there also seems to be some doubt as to whether improvisation itself can be effectively taught in a formal situation. Thus, in interview, Meshkātiān suggested that improvisation is not a "transferable" skill (enteqāli nist, Interview 20.7.92), and Pāyvar maintained that the ability to improvise is a god-given gift (khodādādi) which one either has or does not (Interview 8.11.90). Given, therefore, that the search for an understanding of how pupils learn to create in performance does not lie in the verbal explanations and rationalisations of their teachers, how do pupils learn to improvise?

From the discussion above, it is clear that many of the teaching methods in Persian classical music (even those which take place on an individual basis) allow the student to hear and imitate many different permutations of the basic material. Not only do musicians regularly learn more than one version of the radif, but in addition, different versions of a gusheh may be taught by an ostād. For example, many radifs contain more than one darāmad (opening) section. Nettl believes that these are not intended to be performed consecutively, but to show "... options, of teaching improvisation, as it were, by showing that the same materials can be presented in different arrangements." (1987:97). In this way, "... a teacher can transmit the concept of individual variation or improvisation while retaining also the idea of adherence to stylistic orthodoxy." (Nettl and Foltin 1972:20). This "demonstrating options" may also take the form of subtle and less deliberate (or "conscious") changes which the ostād may introduce into his playing, again implicitly showing the student what can and cannot be varied. This was

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44 This can be compared with the case of rock musicians in New York, discussed by Baily (1991:151, referring to the work of Leslie Gay), where musicians who are musically educated (some to postgraduate level) seem to "suspend" their formal musical knowledge when working in the rock domain, since invoking such knowledge would run contrary to the whole ethos of the musical style.
mentioned as being one of the main advantages of group instruction, allowing a student to hear continually varying permutations of the same section of repertoire in addition to the correcting actions of the ostād, effectively teaching the student what may be varied and the limits within which such variation should take place. The opportunity to hear continual variation is an important part of learning to improvise, and it is significant, therefore, that the teaching methods used in Persian classical music provide many such opportunities.

As mentioned in Section 2.2.1, there are no essential musical differences between the fairly set memorised repertoire of the radif and the performances which are based on it, and this perhaps partly explains how information about structure and creativity is transmitted to pupils with relatively little discussion on the part of the teacher. Thus, in the process of imitating and memorising the radif, pupils learn the fundamental structural principles of the music and the rules of musical variation, which are embedded within the learnt repertoire and which comprise a basic "tool kit" for improvisation. For example, both the radif and performances make "... use of repetition, sequence, development of a motif, and division into sections each based on a short motif." (Nettl 1972:176). Thus, musicians learn to create using the same structural principles found within the radif, and through which they effectively learn the possibilities of variation in performance. In the words of Talāi, "The radif contains within it all that one needs to know in order to improvise." (correspondence May 1986). It would thus seem that role of the ostād is not to teach improvisation as such, but to transmit the material of the radif through which (and through listening to other musicians) the pupil eventually learns to improvise, "... only the assimilation of the models leads to the assimilation of the processes of creation ..." (During 1987c:139). Farhat makes a similar observation when he describes the essential elements of each gusheh as the "melody model" which is "... absorbed by the performing musician, as well as the informed listener, through repeated experience of hearing different renditions of the piece, over a long period of time." (1990:21), and this statement also highlights the importance of informal listening in learning. Zonis claims that in the learning process, "... the student simply absorbs the compositional procedures without being aware of them as such." (1973:98), perhaps much as a child learns

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4 The idea that similar principles are at work both in the radif and in improvised performances will be considered in greater detail in the analyses of Chapters Four to Seven.
to talk without being conscious of the rules of grammar. In effect, then, the ostād teaches improvisation not by what he says, but by what he does.

It is generally accepted that only after many years of study is a student ready to depart substantially from the material of the radif and start improvising. Sources differ, however, as to whether this is a gradual or a sudden process. Nettl, for example, presents the idea of a gradual departure from the radif towards improvised performance:

Thus the student has the opportunity of departing very gradually from the teaching version, at first perhaps doing little beyond adding ornaments, repetitions, and brief extensions, later striking out more on his own. (Nettl and Foltin 1972:20)

In a later publication, however, he states that the student who has:

... learned a theoretical construct ... must now suddenly move to improvisation ... The Iranian musician leaps directly from study at only one level of conceptualization into true performance. (1983:326)

If the structure of the radif itself does indeed teach improvisation, this is perhaps why pupils were traditionally discouraged from attempting to improvise unless they had been studying the music for a considerable length of time, which was presumably considered to be necessary for a thorough understanding of the rules and structures of the music. In some respects, then, it could be argued that verbal explanation is simply unnecessary in this music, the assumption perhaps being that anyone who studies the music long enough will eventually learn the necessary tools and structures to enable them to improvise:

Djamchid Chemirani talked very little in the class. At times, he would remind us about some necessary points, but, generally, he tried to make it possible for the student to grasp things directly by himself, through his own mind and feelings. (Mirabdolbaghi, quoted in During 1991b:212)

The traditional emphasis on contemplation of the music is also important here. Nettl states that Borumand required him to play material from the radif:
... frequently, to look at it from all sides, listen to it, examine it, contemplate it. Perhaps contemplation acts as a stimulus for students to learn to understand the way the structure of the *radif* teaches the techniques and concepts of improvisation. (Nettl 1983:328)

As mentioned earlier, the majority of writings about Persian classical music tend to focus on the tradition as it is found in Tehran. During his research, Nettl had the opportunity of comparing performances from Tehran with recordings of self-taught musicians from the province of Khorasan (north-eastern Iran). Despite the difficulty of learning the *radif* without the aid of a teacher, using only notation and recordings, many of the musicians whose performances Nettl analysed claimed to have done so, and he reports that although the performances of these musicians:

... were usually shorter and less impressive than those of more formally schooled musicians ... one cannot maintain that they differ, as a group, from the others in the techniques of improvisation and the details of performance practice. (Nettl and Foltin 1972:20)

This is of interest in view of the idea that the *ostād* is simply imparting a structure which itself embodies the rules for its own renewal. Thus, the printed sources of the Khorasani musicians may function in essentially the same way as the memorised repertoire of musicians from Tehran. Furthermore, this also lends weight to the importance of informal listening, since the musicians from Khorasan presumably interpreted the written page using knowledge gained through their accumulated aural experiences. As such, their minds were already impregnated with the sounds and structures of the music. Of course, a student learns not only musical material from an *ostād*, but there is also a subtle transmission of gestures and body movements (for example, in relation to an instrument, in communicating with an audience, etc.), as well as a certain approach to music (and, in the past, to life), none of which can be imparted through printed texts. However, it is clear that just as a great deal can be learnt from informal listening, so the physical gestures of performance can be learnt outside of the formal teaching situation by watching and listening to other musicians. Even so, During claims that the performances of musicians who have learnt from recordings and scores are "... deprived of gesture." (1984a:34). Moreover, it is generally
considered to be necessary for a student of Persian music to study with an ostād in order to be accepted within the tradition, the pedigree of training often being an important factor in a musician's standing.46

The idea that the radif of Persian music itself contains the information which musicians need in order to "re-create" it in improvised performance supports the idea of music containing the rules for its own renewal or "... the formative power of previously constructed musical forms." (Rice 1987:474, see Section 2.2.1). Moreover, following the discussion in Chapter One, this also suggests that pupils perhaps learn the "rules" of musical re-creation or improvisation in much the same way that children learn the "rules" of language: through extended exposure to the musical structures, both as listeners and practitioners, although clearly for performing musicians, considerations such as spatio-motor factors also come into play. The discussion of this section has highlighted the ways in which the embodiment of re-creative potential within the radif is manifested in the most characteristic aspects of the teaching methods: hearing and learning different permutations of phrases and different versions of the repertoire; a minimum of verbal explanation; and a formalised system of imitation and memorisation.

2.3.1.4 Musical Notation and Sound Recording in the Teaching Context

Other factors which, in addition to the establishment of teaching institutions, have particularly affected the transmission of music and the dynamics of the tradition, have been the introduction of notation and the availability of sound recording. Five-line staff notation has been known in Iran since at least the middle of the last century with the arrival of European musicians (see Section 2.2.2) but within the classical tradition, notation was not generally used until 1923, with Vaziri's first publication. Many ostāds have been resistant to the use of notation, partly because there is felt to be a certain incompatibility between the increased speed in learning which notation allows and the many years of listening and playing the radif which are considered to be a prerequisite to acquiring the depth of

46 This contrasts with the situation in Afghanistan, where amateur musicians "... were proud to be self-taught, perhaps precisely because training in music was associated with being a hereditary [and hence professional] musician." (Baily 1988:118).
understanding of the material necessary for improvisation. Thus, although most classical musicians today (except perhaps some of the very oldest) can read music, notation is much less prevalent in the classical tradition than might be expected given the generally high standing of musical literacy within the culture.

Notation is generally to be found in two main contexts. Firstly, in published form, such as the radifs already mentioned (for example Sabâ c1965, c1967, and c1970, Massoudieh 1978, and Barkeshli and Ma'rufi 1963) and also the many published teaching manuals, a number of which include materials from the radif (for example, Pâyvar 1961 and Vaziri 1923, 1933, and 1936). Extra-musical factors have also played a role here, since many regarded publication as evidence that Persian classical music was, like western music, 'elmi ("scientific") (this being a direct result of the status value of western culture and its paraphernalia). Secondly, students themselves may make rough notations during or after a class which act as a memory aid during practise sessions between lessons. The radif is a comparatively difficult repertoire to memorise, with many minute details and repetitions to be learnt with relative precision, details which are easily forgotten from one lesson to the next. Although some musicians claim that the discipline of memorisation is in itself a valuable part of a musical education, many pupils and even teachers now use both notation and sound recording as a memory aid:

... scores are rare, but transcriptions playing the role of memory aid are common, and sometimes the teacher dictates the notes to the pupil. (During 1984a:35)

The introduction of notation into teaching has not been without controversy. Whilst teaching manuals may be used in the classroom or by students when practising in order to help with aspects of technique, the radif itself is rarely taught from the written page (presumably partly because this develops visual rather than aural and tactile memories). Meshkâtiân, for example, whilst stating that the ability to read notation is a useful tool which all musicians should possess, nevertheless always teaches the radif by rote, and During also believes that "... the radif can only be transmitted directly 'from chest to chest' (sineh beh sineh) [that is, orally], in which imitation plays an essential role." (ibid.:31). The tombak (goblet drum) player Zia Mirabdolbaghi, in discussing the methods of his teacher, states:

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One day a student, before leaving the classroom and unaware of being watched by the teacher, began to jot down something on a pad of paper. Djamchid Chemirani walked over to him quickly, asked him to hand over the pad, and added with a smile: "It's better to forget than to write down!" This, of course, made the students' task more difficult, but it produced much finer results. They simply had to exercise their memories! (quoted in During 1991b:212)

Nettl observes that some musicians in the late 1960s believed that notation "...violated fundamental values, variability and personal interpretation, that are the basis of the repertory." (1987:119). However, there are different ideas on the role that notation should play in the teaching of the radif: whilst some musicians feel that it has no place, others consider it to be useful. Pâyvar, for example, uses notation, arguing that it is a more efficient way of teaching and learning. He rejected the idea that the use of notation has adverse effects on pupils' ability to memorise the music, since pupils simply use the notation as a memory aid from one lesson to the next, when they are expected to play the particular section of repertoire being worked on from memory (Interview 8.11.90). Meshkâtiân also mentioned teachers at the University of Tehran today who use notation for teaching purposes (Interview 20.7.92). Similarly, Nettl claimed that a large number of musicians, including:

... some older individuals - were of the opinion that notation was extremely useful, that its introduction was one of the best things that had happened to Persian music in many centuries, and that indeed the survival of Persian music depended on it. (1987:119)

Notation is never used in performances of classical music: its presence would be largely redundant in a music where the musician has such a high degree of freedom in performance. However, even pre-composed (non-improvised, usually ensemble) genres such as pishdâramad, tasnîf, and reng are today always played from memory. Whilst notation has found a niche (albeit controversial) in teaching, it has clearly felt to be too much at odds with the improvised ethos of the music to be used in performance. Printed music is regarded by many Iranian

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47 Meshkâtiân expressed the opinion that once students have learnt two or three dastgâhs by rote, they will have gained the aural and tactile knowledge that will allow them to learn other dastgâhs correctly from notation.
musicians as something of an absolute, partly stemming from a rather idiosyncratic view of the role of notation in western music, where it is thought that musicians follow the written score with no variation from one performance to another: notation is perceived as a definitive record of a finished work rather than as a guide or "framework" within which the creative musician can work. Indeed, some musicians regard this as one of the essential differences between the western and Iranian musical systems. Thus, as well as possible changes which publication may have brought about in the actual musical material of the radif, the increased use of published notations in teaching may partly explain changing ideas about the nature of the radif, from the acceptance of many related, but equally valid versions, to the idea that there should be a definitive version which is enshrined on the printed page or on magnetic tape. Such publications, by their very nature, present the radif as an absolute, static product rather than as a dynamic process.48

As well as the considerable impact of notation on the processes of transmission in this music, it should also be noted that many younger (and some older) classical musicians are both musically literate and have a good knowledge of western music (and also of a range of other musics), alternating the role of classical musician with that of western-style composer (eg Sabâ, Pâyvar, Alizâdeh). In addition, a number of musicians - for example, Hormoz Farhat, Alireza Mashayekhi, and Dariush Dolatshahi - studied composition in Europe or North America, and are still based outside Iran, and some have experimented with incorporating elements of Persian music into avant-garde composition (details of the works of these and other composers are given in Mansuri and Shirvani 1977:158-172; see also Nettl 1987:125).

Other changes which have affected the processes of transmission in this music should be briefly mentioned. The cumulative effect of an expanding mass media, recording technology, and public concerts, has been increased access to a greater variety and quantity of music than formerly for both musicians and non-musicians. Since the advent of sound recording, and particularly from the 1960s with the

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48 The introduction of notation has similarly affected concepts of variability and creativity in many musical traditions. El-Shawan (1987:156), for example, discusses the effects which the use of notation has had on creative improvisation in Egypt.
availability of the relatively cheap medium of magnetic tape, students have been able to hear and learn from the playing of many different musicians and also to use sound recording as a memory aid in much the same way as notation. For example, according to Parisa (1985:80), Ostād Mahmud Karimi would give students recorded sections of the radiif to help them in their practising between lessons. Like notation, sound recording has clearly affected the dynamics of the tradition in a number of ways. For example, pupils are now able to repeatedly hear the same rendition of a piece of music, something which was not possible (or even conceivable) prior to the early years of this century, and which clearly has implications for concepts of variability within the tradition. At the same time, with the wide availability of recordings, the potential range of students' musical experiences has been vastly expanded. In terms of techniques of improvisation and concepts of creativity, the profound effects of the advent of sound recording and broadcasting will be discussed in Chapter Three.49

Despite the far-reaching changes which have affected Persian classical music in the course of this century, it is interesting to note that the basic methods of teaching appear not to have changed substantially. Thus, despite the drive towards westernisation and increased rationalisation in other areas of the musical system, the repertoire is still taught with a minimum of explanation by the teacher, and imitation and memorisation are still the central techniques of learning. Rationalisation may have affected some aspects of the musical system, but at its centre - the learning process - the rationalisation that might have been expected has not taken place. Moreover, despite differences between the various teaching methods described earlier, certain clear patterns emerge, suggesting that the technique of oral, non-verbalised teaching, involving the continual hearing of variations, is ideally suited to the transmission of musical structures and information about the limits and rules of variation in a largely improvised musical tradition. This in turn would seem to point to an integral relationship between a particular music and the ways in which it is taught.

49 For further discussion of the role of notation and sound recording in the learning of Persian classical music, see During 1984a:32-34.
2.3.1.5 Teacher-Pupil Relationships

As mentioned earlier, students of Persian classical music generally learn with more than one oستاد in the course of their training in order to deepen their musical knowledge (although a musician would not usually study with different teachers during the same period of time). Thus, there have not been distinct teaching schools (except perhaps for the, as yet little studied, distinctions from one part of Iran to another) or clear lines of teacher-pupil relationships. This is not to suggest that the teaching pedigree of a musician is not important in the Persian system, but tracing the network of connections between musicians is a relatively complex process.

Figure 2 presents a "genealogy" of teachers and pupils from Farahâni and his sons to the present day, and shows the closely-knit network of musical transmission. A distinction is often made among older musicians between individuals who studied with Mirzâ Abdollah and those who studied with Hossein Qoli. However, not only were these two brothers both taught by Qolâm Hossein, but moreover, Hossein Qoli's first teacher was in fact Mirzâ Abdollah. A number of musicians, including Darvish Khân and his pupil, Abol Hassan Sabâ (1902-1957), prominent musicians of the first half of this century, inherited from both "strands" of the tradition. Darvish Khân and Sabâ both had many pupils through whom they transmitted their own unique syntheses of the radifs of Mirzâ Abdollah and Hossein Qoli, and to some extent, both simplified the musical repertoire in order to render it more accessible to their pupils. According to During, Darvish Khân was obliged to teach in order to make a living, and as such he had to find new ways of arranging and simplifying the material of the radif in order to keep his pupils interested (1984a:127). He has thus been criticised by those who regard themselves as upholding the "authentic" tradition. The gulf between amateur and professional musician is clear here, the implication being that an amateur

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This contrasts strongly with the clear lines of transmission evident in Indian classical music. Compare the genealogy in Figure 2 with that shown for three gharânâs of tabla playing in North India in Kippen 1988a (pgs 68,70,72).

This genealogy is based on information from various sources, including books by Caron and Safrate (1966:216-230), Sâdeghi (1971:17), Khâleqi (1983b), During (1984a), Nettl (1987:185), and Behroozi (1988); interviews with musicians; biographical details on cassette covers and record sleeves; and several concert programme notes (listed at the end of the bibliography).
Figure 2 - Genealogy of Prominent Persian Classical Musicians from Farahani to the Present Day.
musician would not have been compelled to make such changes to the tradition. The history of Persian classical music in this century has been characterised by an implicit tension between what might be termed the "purist" approach and the approach of those who have advocated greater accessibility of the music to the general public, despite potential compromises to the "tradition" (with a spectrum of opinion between these two positions). By the early 1970s, there were two main musical "currents", and whilst these were not discussed in such terms within the society, they were partially apparent, for example, in the approaches of particular teaching institutions. Although catering for pupils of different age groups (and perhaps because of this), there was an important difference in approach between the Honarestān-e Melli on the one hand and the University of Tehran and the Markaz-e Hejż-o Eshāeh on the other. The former was regarded as somewhat acculturated by musicians who saw themselves as maintaining the "authentic" tradition, these being musicians who were generally associated with the Markaz-e Hejż-o Eshāeh and the Music Department at Tehran University, and some of whom had Sufi connections.\footnote{Historically, there has been a close connection in Iran between music and mysticism (erfān), as seen in the setting of mystic poetry (such as that of Jalāl-e Din Rumi), and music has played an important role in Sufi orders (Zonis 1973:19). Since the 1979 Revolution, there has been a resurgence in interest in mysticism, and a number of prominent classical musicians today have close connections with Sufism and have written on the subject of music and mysticism (see, for example, Safvate 1985; see also Naṣr 1972, and During 1975, 1989a).} For example, many of the Honarestān teachers were regularly heard performing on the radio, something which many at the "Markaz" equated with "popularising" the tradition (in a derogatory sense; see During 1984a:25). Whilst these two "currents" had largely merged by the late 1970s, with the majority of promising young musicians being trained at the University, such tensions can still be discerned in discussions with musicians and in the literature. It is impossible for a Persian musician not to define his position in relation to the tradition, and for this not to be demonstrated in his music. This was seen, for example, in the earlier discussion of Alizādeh's rather liberal approach to "tradition", which is criticised by some (particularly older) musicians, for whom maintenance of the "authentic tradition" at times seems to override all other considerations, including aesthetic ones.\footnote{See, also, During's rather vitriolic admonishing of present-day musicians who, in aiming to reach a wider audience, somehow "sell out" to the tradition (1991b:251-256).}

A musician who should be mentioned for his particular importance as a teacher
is Nur Ali Borumand (1905-1978), who transmitted the *radif* of Mirzâ Abdollâh in what is generally regarded as its most "authentic" present-day form, to a large number of students at the University of Tehran and the *Markaz-e Heft o Eshâeh* until the late 1970s. Although little known among the general public and a somewhat controversial figure among musicians, Borumand was highly regarded as a teacher because of his excellent knowledge of the traditional repertoire. Brought up in a household frequented by musicians, Borumand received his first lessons on the *târ* from Darvish Khân when he was seven years old. At the age of sixteen, he went to Germany to attend secondary school, and whilst there he also studied piano. Borumand continued his studies in medical school, but after losing his sight returned to Iran and devoted his life to Persian music (Nettl 1987:142-5). However, it was not until much later in life that he started to teach *radif*, initially at the University. Many prominent musicians born between about 1940 and 1955, including Shajariân (b.1940), Lotfi, Alizâdeh (b.1951), Meshkâtiân (b.1955), and Jamshid Andalibi (b.1956), were taught by Borumand at some point in their training. Borumand is highly respected among many of the musicians of this generation and his influence as a teacher can be seen both in the present-day performances and teaching methods of his own pupils, and also in the West in the writings of two of his non-Iranian pupils, Nettl and During, who have interpreted him in very different ways.  

### 2.3.1.6 New Developments in Teaching

As discussed earlier, for many decades the basic teaching methods and learning processes of Persian classical music appear to have remained essentially unchanged, and depend upon pupils imitating and memorising many different permutations of the repertoire with little explanation on the part of the teacher. It was suggested earlier that such methods are well suited to a music in which pupils need to internalise processes which become the basis for future creativity. In recent years, however, it appears that at least one *ostâd* has started to use methods which involve a greater degree of explanation and discussion of improvisation in teaching sessions. During reported that Alizâdeh has started to

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* See also Nettl (1974b) and Sârami (1990) for further discussion of Borumand's life and works.
teach improvisation in his classes using analytical methods to explain details of musical structure to his pupils and to show how the material can be extended in improvisation. This has apparently emerged from his desire to bring creativity (khalāqiyyat) right into the centre of the teaching process:

It seems that he would like to correct the image of tradition, which may appear to us as something frozen and just an imitation and repetition of the same thing. So, Alizâdeh was complaining about the traditional way of transmitting the radif, because the aim of the radif according to him is principally to develop musicality and to provide a basis for creativity. (During, Interview 8.12.90)

In addition, Alizâdeh has published a set of cassettes which comprise his rendition of the radif of Mirzâ Abdollâh (essentially in the form taught and recorded by Borumand), and which includes at the end of each dastgâh a certain amount of analytical discussion, comparing particular opening and forud patterns, as well as other shared motifs and melodic patterns found in the different gushehs of that dastgâh (Alizâdeh 1992). For example, the radif of Segâh is followed by an analytical section in which Alizâdeh plays (among other things) the shared openings of the gushehs zãbol, muyeh, and bastenegâr, explicitly demonstrating a relationship which would traditionally have been inferred by the pupil. These cassettes are of great interest, suggesting a growing analytical awareness in the teaching of Persian music. To the extent that the basic analytical method employed by Alizâdeh is to play short fragments of gushehs in order to highlight points of comparison, with relatively little explanation, there is a continuation of traditional teaching methods. Moreover, there is no attempt to present pupils with a highly detailed analysis of the musical structures. Where the cassettes depart fairly radically from tradition is the way in which relationships between gushehs, particularly in terms of shared motifs and patterns, are explicitly presented. There is also a further section in which gushehs found in different dastgâhs are presented comparatively (some in abbreviated form), and this section

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55 Interestingly, the recording of a lesson given by Borumand (and recorded by Nettl), referred to in Footnote 43, does include a limited degree of this type of discussion, but in much less detail. Thus, in teaching dastgâh Mîhûr, Borumand explained the main difference between the gushehs rîk and araq to his pupils. Moreover, he played some of the phrases at a reduced speed, in order that his pupils could imitate his playing more easily. There was, however, no discussion of improvisation in this recording. The fact that Borumand was one of Alizâdeh’s main teachers may thus be one factor in his more rationalised approach to teaching.
includes even less in the way of verbal explanation.

It is important to note that Alizãdeh is by no means typical of classical musicians in his work. Although thoroughly trained in the classical tradition, he is less interested in maintaining the tradition for its own sake than in using it to express the needs of his time:

I too believe that the authenticity (essãlat) of traditional music should be preserved, and taught, and made available to the people, but I do not believe that the only authentic (assil) art is that which repeats the past ... It is not important for me that my music is not known as authentic. I do not claim to be authentic or traditional (sonnati). I follow a path which in my opinion has roots in the past and a view to the future. I do not wish to write songs and play the târ as they did one hundred years ago. I have no desire to do that. (Sarkoohi 1989:36)

It is difficult to ascertain the extent to which other ostâds are starting to incorporate a greater degree of verbal explanation in their teaching, or whether they are even aware of Alizãdeh's new approach. It seems unlikely that this practice is widespread, but even so, such ideas are certainly "in the air". Pãyvar, for example, responded to a question regarding the teaching of improvisation with an openness which might not be expected of a musician of his generation:

No, improvisation is not taught. It should be, but we are not yet organised enough to do this. Maybe one day, there will be such classes. (Interview 8.11.90)

Meshkãtiãn stated that pupils nowadays often ask their ostãd to improvise, and that pupils record these improvisations in order to analyse the music (note the use of sound recording here as a learning tool). He partly attributed this greater interest in understanding the musical structures and the processes of

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56 The Persian words assil (adjective, meaning "authentic", "genuine", "true", and which can also refer to a person of noble birth) and essãlat (noun, meaning "authenticity", "validity"), are both derived from assi (meaning "foundation", "basis", "truth", "genuine", "authentic"). These words cover various shades of meaning, but as used by Alizãdeh, the most accurate translation would seem to be "authentic". Indeed, as noted earlier, Persian classical music itself is usually referred to as musiqi-e sonnati (traditional music) or musiqi-e assil, although the latter also indicates the noble/royal associations of this music.

57 Alizãdeh has also been involved in other types of educational work, for example, composing music for children, and adapting the methods of Carl Orff for teaching children in Iran (Sarkoohi 1989:37).
improvisation to the increased general musical awareness of the younger generation, who are no longer content to listen and imitate without question. Indeed, it would seem to be partly in response to this that Alizâdeh's new methods have emerged. Thus, whilst the traditional teaching methods described earlier are indeed well suited to the musical system, general developments in musical education are now producing a different brand of musician, with a broader outlook and keen to explore and rationalise the musical system. Such musicians clearly have different needs in terms of their training, needs which will presumably be met through changes such as those described in this section.

It is difficult to predict the direction which teaching will take. Alizâdeh's approach is certainly consistent with the changing identity and outlook of the Persian classical musician, and with other changes both within the musical tradition and in society at large. However, the majority of musicians still maintain that the traditional teaching methods are the only satisfactory way of transmitting this music. One thing is certain: that the methods by which Persian classical music is taught lie at the heart of the musical system and that any changes in these methods will both affect and be affected by changes in the musical tradition as a whole.

2.4 Concluding Remarks

This chapter has explored various aspects of the radif as the central canonical repertoire of Persian classical music, including a consideration of the processes by which the radif is transmitted from one generation to the next. As understood today, the term generally refers to the specific repertoire originally taught by Mirzâ Abdollâh and which exists in a number of published forms as well as in the oral tradition of his pupils and their pupils. To sum up the discussion of this chapter, it was suggested that the radif is both a model which contains within itself an underlying framework for creativity in performance, and is also part of a larger "performance model" which includes other aspects of the musical tradition. The specific methods of teaching and learning appear to have changed very little in the course of this century, despite the many changes which the musical system (and society) as a whole has undergone in this time, and it was
suggested that this points to an integral relationship between the music and the methods used to teach it. Thus, the various teaching methods still centre around allowing pupils to experience and learn many different versions of the same section of repertoire through imitation and memorisation. The teacher provides little in terms of explanation, particularly with regard to questions of individual interpretation, and this partly relates to the dearth of technical terminology in this area of the musical system. Indeed, there seems to be a more or less conscious eschewal of the verbal domain, and it was suggested that instead it is the very process of learning different versions of the *radif*, and indeed the structure of the *radif* itself once memorised, through which pupils learn to improvise. More recent developments in the approach to teaching in the last ten years or so were also briefly discussed, and it is possible that what seems to be a move towards greater rationalisation and verbalisation may be directly related to the emergence of a professional body of university-educated musicians. The *radif* plays a fundamental role as the starting point for all creativity in Persian classical music, and it is this creativity which will form the central focus of the next chapter.
3.1 Music and Cognition

In recent years there has been a growing interest in matters of music cognition, particularly within the realm of music psychology (and influenced by developments in cognitive psychology; see, for example, Deutsch 1982, Sloboda 1985 and 1988, Howell, Cross and West 1985 and 1991, Dowling and Harwood 1986, Hargreaves 1986, Lerdahl 1988, Clarke and Emmerson 1989, McAdams and Deliège 1989, Balaban, Ebciglu and Laske 1992, and Cross and Deliège 1993). The study of music cognition has also become an area of interest to ethnomusicologists (see, for example, Herndon and McLeod 1979:57-79; Kippen 1987; Baily 1991 and 1992; Volume 34(3) (1992) of The World of Music (ed. Koskoff), including articles by Tolbert, and Baily and Driver; and Baumann (1992)), and this has partly resulted from the renewed focus on the musical experiences of the individual (both musician and non-musician) as well as on questions of musical universals, in particular universals in musical perception. Interestingly, it was similar questions which concerned Von Hornbostel and other comparative musicologists of the Berlin School in the early years of this century (see Christensen 1991 and Baily 1992).58

Music cognition covers a range of different but closely related processes, and has been defined as:

... a part of the broad area of the psychology of music and is focused on the dynamic mental processes involved in the perception, performance and composition of music. It is ultimately concerned with the cognitive representation of musical structure. (Baily 1992:144)

Baily discusses some of the inherent differences in approach to musical cognition within psychology on the one hand and anthropology on the other. Whilst music psychologists have largely focused on matters of musical perception through

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58 The reader is referred to Baily (1991 and 1992) and Tolbert (1992) for a detailed overview of the significance of the study of musical cognition within ethnomusicology.
devised tests, ethnomusicologists, following trends within anthropology, have tended to study the ways in which people talk about music, and by inference the categories which underlie conceptual thinking about music (ibid.:147). Scholars such as Herndon (1971, 1974, 1993), Keil (1979), Zemp (1979), and Feld (1990, originally published 1982) have argued the importance of "native" verbalisation and categorisation within ethnomusicological work, at the same time acknowledging the culturally-bound interpretive role of the ethnomusicologist:

... *Sound and Sentiment* is not intended as unmediated copy of "the native point of view," and few ethnographers these days would quibble with Clifford Geertz's (1976) assertion that ethnographies are supposed to be what we ethnographers think about things as much as they are supposed to be accounts of what we think the locals think they are doing." (Feld 1990:253)

The anthropological approach to musical cognition has led to much debate within ethnomusicology in recent years, and to a number of crucial questions:

What is the significance of verbalized music theory? Why do some societies have such theories and not others? What is their relationship to differing types of music, and are there some kinds of music which cannot be readily learned or performed unless one acquires this formal knowledge? What is the cognitive role of music theory? (Baily 1992:147-8)

In the Persian tradition, some aspects of the music are characterised by a developed theory and accompanying terminology. Thus, medieval theorists such as Safiaddin Ormavi (d.1294) were particularly concerned with details of modal structures and interval sizes (as well as rhythmic modes), and this is still the most "theorised" aspect of the music, with musicians today using a wide range of terminology to discuss modal entities and important pitches within each mode. In contrast, as mentioned in Chapter Two, other aspects of the music, in particular details of improvisation, are rarely discussed by musicians, and there is thus very little technical terminology in this area. The Persian tradition is, of course, not unique in this respect. Thus, Lord, for example, in discussing his work on Yugoslav epic singers, says:

About the question of asking the singers themselves to explain how
they compose - this is a rather difficult thing to do, in the sense that, although supposedly they should be able to tell you, as a matter of fact, they don't know. And their ideas of how they do it are ideas that have been suggested to them from outside rather than inside. Sometimes you can get valuable information from a singer by indirect questioning. Avdo Mededovic, who was our best singer, would not talk about it directly. (in ed.Stolz 1987:289-90)

Herndon and McLeod, however, argue that musicians do in fact possess an implicit knowledge of what they are doing, even though they may not be able to express it verbally:

While rules are known by an individual, he may not be able to state them explicitly or clearly; nor will an individual necessarily be able to replicate the totality of rules stated by any other individual ... it remains a task for the researcher to formulate the tacit rules which members of a group are using in order to create their music ... (1979:62)

In terms of music cognition, this raises important questions regarding the nature of 'music theory', whether such theory must by definition exist in the verbal domain, or whether it can exist cognitively without being expressed verbally. For example, whilst the teaching of the Persian radif has generally involved little in the way of theoretical explanation (until recently at least), it could be argued that the radif itself constitutes a form of non-verbalised music theory, as the analyses of the following chapters will suggest (see also discussion in Section 3.1.5).

In the context of the present study, there are a number of central questions relating to aspects of cognition, and to the fundamental relationship between cognition and musical practice. For example, how do musicians (and non-musicians) conceptualise the radif, creative performance, and the relationship between the two?; what cognitive processes are at work in performance which interact with spatio-motor factors to effect the many decisions which are made in the course of a performance?; and what is the relationship between how musicians discuss such matters and the practice of improvised performance? Whilst detailed psychological testing was beyond the purview of this study, there was scope for examining aspects of musical cognition such as musicians' concepts of creativity, how and why such concepts may have changed in the course of this
century, and the ways in which these changes have been affected by and in turn have affected musical practice, an area which has hitherto been given little consideration in studies of Persian music.

Whilst exploring aspects of music cognition has become common practice within ethnomusicology, a few writers have questioned the validity of this approach:

Is it really possible to know what musicians think? And if so, is there a necessary causal relationship between what musicians think and the sounds they produce? (8) ... what people say they think is merely indirect evidence of what they do think ... Similarly, what people do is also merely indirect evidence of what they think. (Rahn 1983:11)

Although it might be argued that Rahn is overstating the case, it is nevertheless important to question the underlying assumptions regarding the relationship between what musicians think, say, and do. Various strategies have been used by scholars to explore the conceptual thinking which underlies music making, in particular involving musicians in the analytical process itself (see, for example, Kippen 1985 and Widdess 1994). This study is not an attempt to replicate the processes in the mind of the musician, but to present an (inevitably) individual interpretation and understanding of the music on the part of the author, whilst also assimilating the viewpoints of musicians themselves. The role of the ethnomusicologist is clearly not to attempt to find the "correct" answer, but to negotiate between the various viewpoints of musicians and the evidence of musical analysis: to understand the rich diversity of ideas about creativity and the ways in which these are manifested in the music. The words of Herndon would seem to be pertinent here:

As to the question of who can, or who should, speak for a musical style, music culture, performer, or occasion, that, too, is negotiable territory. If possible, multiple voices, from many points of view ... would weave a clearer picture of the music of a people. Such voices would include all ranges of practitioners, participants, non-participants, total strangers, and deep initiates ... (We) should remember that no voice, by itself, is sovereign, absolute, and definitive. (1993:78)
The focus will be on concepts, both as expressed by musicians in interviews and also as reported in the literature, the aim being to demonstrate and to attempt to explain the range of ideas which characterise this area of musical experience.

3.1.1 Concepts of Creativity

Whilst bedāheh navāzi (also fel bedāheh, bedāheh sarāi, bedāheh sāzi, bedāheh khāni, bedāheh pardāzi) is the closest Persian equivalent to the English "improvisation", the history of its use in relation to music is uncertain. Bedāheh sarāi originates from the realm of poetry where the tradition of extempore recitation of poems apparently existed in the courts of the pre-Islamic Sassanian kings (During 1991b:154). Whatever the history of the term, bedāheh navāzi is widely used by classical Persian musicians today, most of whom are familiar with a broad range of musics, and who are certainly aware of both the word and the concept of "improvisation" in western music. All of the musicians whom the author interviewed (Pāyvar, Alizādeh, Meshkātiān, and Berenjīān) or corresponded with (Talāī) used the term bedāheh navāzi unreservedly, which they readily translated as "improvisation", and they frequently drew analogies with improvisation in other musics, in particular western and Indian musics. It is interesting, therefore, that the only non-Iranian writer on Persian classical music to mention this word is During (1984a:202), whilst adding the caveat that bedāheh navāzi differs from the general understanding of "improvisation" in the West (implying the existence of a consensus on this). The emphasis that bedāheh navāzi does not imply "free" improvisation, but creativity which is always within the framework of the radif will be considered below, and this clearly relates to the discussion in Chapter One regarding the definition of improvisation. Other non-Persian language writers simply use the English (or French) "improvisation" without mentioning the existence of corresponding Persian terminology. Nettl is the only author who questions the use of the word "improvisation" in the Persian context, but from a slightly different perspective to During. He suggests that the concept of improvisation is alien to the musical system, where musicians do not necessarily think in terms of "improvisation", but simply of "performance",

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59 The Sassanians ruled from 224 to 637 A.D.
accepting the differences between renditions as a normal part of the musical system (Nettl and Foltin 1972:11-12). Whilst this may certainly be part of the equation, it is likely that Netti’s avoidance of the word bedāheh navāzi is reflective of Borumand’s distrust of the term (and perhaps even slight misunderstanding of the quasi-equivalent English "improvisation"), similar to the reaction of Ram Narayan cited in Chapter One, and seen in the following quotation:60

Improvisation has [also] been a problem to Persian music, in the sense that [some] musicians have been thinking and saying that you can play whatever you feel like playing; and this is what they have done all along. As a result, we now have musicians who call themselves improvisers, and who do actually improvise. But when we really pay attention to their performances, we find them to be far removed from genuine traditional music ... they should realize that, in order to develop the subject properly, the work of an improviser must have a basic structure, and every phrase should be appropriately related to the one that precedes it. (Borumand, quoted in During 1991b:204-5)

In the continuing debate surrounding the concepts and terminology of creativity in this music, it is important to note that despite the difficulty of ascertaining precisely when the term bedāheh navāzi first came to be applied with respect to music, it is today readily accepted and used by musicians. Moreover, the importance of individual expression and variation in the music is evinced by the symbolic significance of the nightingale in Persian culture. This bird is regularly encountered in the literary and visual arts of the country, and is considered not only to possess the most beautiful of voices, but is also believed never to repeat itself in song (Nettl 1983:208). The image of the nightingale is often invoked by teachers of Persian classical music to demonstrate the ideals to which their pupils should aspire, especially in the case of singers. In the words of During, "Creativity, expressed as khalāqiat, is at the centre of all discussion with traditional [Persian] musicians ..." (Interview 8.12.90), and this was borne out in discussion with Pāyvar:

For someone to be creative [khalāq] requires taste and ability [zoq va estedād]. Without these, you can’t be creative. Taste and ability

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60 Borumand was Nettl’s main teacher in Iran, and Nettl derived many of his ideas about Persian music from him.
are god-given [khodādādī] and you can't increase or decrease them, but you can develop them with education [tahsilāt]. (Interview 8.11.90)

3.1.2 Creativity Within the Radif

In discussion, Pāyvar continually stressed the importance of a balance between zoq va estedad (taste and ability) and tahsilāt (education), each one being insufficient by itself. This highlights an important point, that whilst individual expression is central to this music, it is fully acknowledged that this should be within the limits of the tradition as embodied in the radif (and expressed by Pāyvar as "education"). This is clearly discernable both when talking to musicians and also in the literature. For example, Berenjiān used bedāheh navāzi freely in interview sessions, but always made it clear that this implied improvisation in relation to the material of the radif. Berenjiān claimed that only musicians who had studied the radif for many years were able to improvise well, and he regularly used the word pokhteh (lit. "cooked", "ripe") to refer to a musician who is mature and experienced and thus in a state of readiness to apply his knowledge in improvisation. Berenjiān explained that a musician who has not studied the radif simply cannot improvise properly, implying that only improvisation within the context of the radif is acceptable:

Of course, it's good to improvise, but it has to be close to the radif. If you are able to improvise close to the radif, that is beautiful [qashang]. Otherwise, if you just play rubbish [chert o pert] from yourself, that is not beautiful. (Interview 7.12.89)

Indeed, on several occasions, Berenjiān suggested that the improvisations of a musician who has played the radif for many years will automatically take shape from within the structures with which he is familiar - he cannot play outside the radif:

You see, when you have played the radif for many years, and the gusheha are "in your ears", you can't play anything else; whatever you play will be near the radif. (Interview 10.11.89)
As a result of [dar asar-e] playing different radifs, there are certain movements which are in his hands [dar panjeh-ash]. (Interview 7.12.89)

The second quotation interestingly refers to the importance of motor memory in musical creativity, discussed in Chapter One. In assessing the recorded performances of a number of musicians, the expression chert o pert was regularly used to distinguish between musicians who clearly did not have a thorough knowledge of the radif and those whom Berenjiān considered to be improvising skilfully within the tradition. In addition, distinctions were made not only between musicians who knew the tradition and those who did not, but between degrees of immersion in the traditional repertoire. In other words, there are many ways of creating, but some are more "correct" (typically, as in above quotation, expressed in terms of beauty) than others. Exploring such aesthetic judgements clearly gives the researcher interesting insights into the rules and boundaries of creativity in any music.

Other musicians endorsed the above comments. Bahārî, for example, claimed that a musician who does not know the radif cannot improvise ("... agar radif nadooneh, bedāheh navāzi nemitooneh bokoneh ...", Interview 8.11.90), and Pāyvar emphasised the importance of the radif, using the expression part o palā (lit. "all over the place") in a similar way to Berenjiān’s chert o pert:

The basis [pāyeh] must be there. If it isn’t, then the musician will play "all over the place". The sign [neshooneh] of an ostād is that he works on the basis of fundamental principles [az rooyeh assās kār mikoneh]. (Interview 8.11.90)

Responding to a question regarding the possibility of someone being able to improvise Persian classical music without knowing the radif, Meshkātiān (Interview 20.7.92) suggested that whilst this was possible, the resulting improvisation would be without roots ("risheh"). A similar concern for "roots" is voiced by Alizādeh:

Inevitably, anyone who wants to create, must be linked to the roots [of the music]. He should know the true essence [johar] of Persian music and its radifs, as an alphabet, as tools. But after this period
[dorān], the artist is faced with the question of what to do with these tools (35) ... Art should have its roots in the past and a view towards the future. (36) (Sarkoohi 1989)

This statement is very interesting, coming from a musician who whilst being well trained in the classical tradition has been somewhat experimental in his work and has sought new modes of expression, which more conservative musicians have regarded as compromising the authentic tradition.

Interestingly, a number of Persian musicians have drawn comparisons with poetic composition:

The form is the prerequisite of every creation. If you have an idea ... but you know nothing about the rules of poetry, you cannot compose a poem ... If you really wish to write poetry, you must know the forms called qālebs or molds. In the same way, the radzf is truly a mine of forms and molds for music. (Safovate, quoted in During 1991b:215)

And from a slightly different perspective,

A poet is not judged by the number of poems of Hāfez or Mowlavi that he knows by heart. One's acquired knowledge and one's relationship with the past are important, but in the work of an artist these are important only to the extent of being a support for creativity and innovation. (Alizâdeh, in Sarkoohi 1989:36)

The idea of creation within the limits of the tradition can also be found in the general literature:

Radical innovation, contrary to the recent "new music" culture in the West, almost automatically places one outside the category. Ability to hold on to the tradition is a more important criterion. (Nettl 1983:35)

... far-flung inventiveness may play a smaller part than does the importance of showing that one has a thorough control of the radif. (Nettl 1987:64)
The improviser should know the traditional music and its interpretation and application by memory in order to be able to improvise properly. (Sadeghi 1971:21)

A thorough knowledge of a musical system is always a prerequisite to being able to create within it, whether as a composer or as an improviser, "Composition and improvisation demand ... the assimilation and integration of the very principles of the music." (Nettl op.cit.:36). Indeed (and as discussed in Chapter One), the greatest improvisers are often those who are able to balance tradition and innovation, displaying the most creative expression within the closest confines,"In improvising, the musician who surprises most without completely violating the system is praised." (ibid.:158).

This is a complex area of discussion, since musicians clearly differ in the extent of their creativity in performance. A musician who adheres too closely to the radif may be criticised (unless he is clearly just "playing radif", a much less common and less valued activity, distinct from improvisation), since a certain level of creativity over and above the memorised repertoire is required for a successful improvised performance. Musicians must achieve a balance between demonstrating creativity, but without digressing so far as to be accused of not knowing the radif. Indeed, the degree of improvisation in a musician's performance may depend upon his status as a performer: whilst a master musician who has proved his knowledge of the repertoire may depart significantly from the radif, a similar performance by a younger less-known musician would suggest a lack of knowledge or disregard for the tradition. Nettl (1987:157) has discussed the link between status and licence in Persian culture, the status in this case being achieved through knowledge of the radif. Moreover, the above quotations from Berenjián suggest that the greater the knowledge of the musician, the more comfortable he is within the tradition and is thus able to experiment and manipulate the musical material more freely without exceeding acceptable limits.

What emerges from the above discussion is that whilst individual creativity is

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41 This relationship between status and licence is known as "idiosyncrasy credit" by psychologists.
important in Persian classical music, this must be within the context of the radif. In essence, one has to be fully immersed in the tradition in order to create well. Moreover, musicians experience the relationship between radif and performance - between tradition and the individual - differently, varying in their degree of adherence to the radif in performance. In addition, as will be seen in the following analyses, different sections of the repertoire also demand varying degrees of departure from the learnt model in performance.

3.1.3 Levels of Improvisation

As mentioned above, the performance of Persian classical music may range from straight renditions of the radif (rather uncommon and not highly valued in the musical tradition) to creative improvisations which simply take inspiration from the radif. A few writers have identified "levels" of improvisation, During, for example, discussing three "levels of interpretation" (niveaux d'interprétation) of the radif (these seem to be partly based on the writings of Caron and Safvate [1966:128]), which depart progressively from the radif until the musician reaches a point at which he is "... liberated from the formality of the radif ..." (1984a:202), implying a freedom which can only come from a thorough knowledge of the repertoire. This constitutes what During refers to as "la grande improvisation" (terminology possibly derived from Caron and Safvate 1966:129, although not acknowledged as such) as opposed to "la petite improvisation" of the other levels where the radif itself is simply modified. In a later publication, During suggests four types of improvisation, based on similar criteria (1987c:137-8).62

However, neither During nor Caron and Safvate discuss how such levels are conceptualised and discussed by musicians. Is there a Persian equivalent for the terminology of "grande" and "petite" improvisation? (the author was certainly unable to identify any such terminology). Whilst Caron and Safvate consider the most advanced level of improvisation to be morakkab khâni (or morakkab navâzi, the movement from one dastgâh to another using gushehs held in common

62 Whilst in the earlier publication, During states that these are not necessarily "qualitative levels" (1984:202), he later claims that the level of improvisation which represents the greatest departure from the radif is valued by the public at large, but is less highly regarded by connoisseurs (1987c:138).
between the *dastgāhs* as bridges) (1966:128), this practice is not heard commonly in performances today. During also includes *morakkab khānī* as part of his third level (1984a:202; possibly after Caron and Safvate, although once again this is not acknowledged), as well as the performance of measured pieces such as *chāhārmērzābs* and *rengs* (see Glossary for definition of these terms). However, there are certainly many performers who demonstrate highly skilled improvisation without using either *morakkab khānī* or playing pieces in a regular meter (vocalists, for example, never perform *chāhārmērzābs* or *rengs*, which are strictly instrumental genres). Moreover, not only is it unclear how the levels outlined by During relate to his categories of "creative" and "strategic" improvisation discussed in Section 1.3.4 in Chapter One, but the question of where one level ends and the next begins is somewhat ambiguous. Indeed, it would seem to be more useful to think of this in terms of a continuum rather than discrete levels.

Meshkātiān made a distinction between different types of interpretation without specifying particular "levels":

Some musicians are *radif navāţ* ["radif players"], some are *bedāheh navāţ* ["improvisers"], some are both. These are all relative. Some musicians are not creative enough [i.e. to improvise]. (Interview 20.7.92)

Whilst it is difficult to define the extent to which the basic material of the *radif* must be modified before a performance constitutes *bedāheh navāzi* rather than simply *radif navāzi*, musicians and knowledgeable listeners do generally make such judgements. However, there are a number of important issues here. The first is that assessing an improvisation at the time of performance might produce different results from recording (in effect "freezing") the music on magnetic tape to be assessed later. Moreover, whilst a performance which adheres very closely to the *radif* can be recognised as such (by those who know the repertoire), making judgements regarding the degree of freedom in performance is tricky, largely because an improvisation can only be judged in terms of the specific model on which it is based, and the difficulties involved in identifying such a model for any one performance have already been discussed in Chapter Two. In addition, even the most creative improvisations will be moulded by the musician's study of the *radif*, even if specific melodies or motifs cannot be identified.
3.1.4 Pre-determined or Spontaneous?

Creativity in Persian classical music depends upon the interaction between musicians' knowledge of the *radif*, individual idiosyncrasies, past experiences, and instrument morphology on the one hand, and a certain degree of spontaneity on the other. In any one performance situation, the former aspects represent a backdrop of various levels of pre-determined structures on which the spontaneous elements of the performance are based. However, judging the degree of spontaneity in a performance involves more than simply assessing a particular improvisation against a particular version of the *radif* (assuming that this version could be identified). It is possible, for example, for aspects of the music to be prepared before an improvisation (or to be drawn from the mental store of patterns which each musician possesses): these are clearly not spontaneous, but neither are they taken directly from the *radif*.

It is interesting to examine the ideas of musicians regarding the extent to which performances are prepared in advance and the extent to which they are truly spontaneous expressions. There is general agreement that the *radif* is something which needs to be practised, since it is considered to be the main source of musical material as well as the spiritual inspiration for Persian classical music. However, the Persian classical system does not generally demand long hours of practice in order to develop physical technique. Rather, it is the "soul" (*hâl*) of the music which is important. Not only is it thought that this can be developed away from the instrument, but as During states, there is a belief, particularly among some older musicians that "... too much work harms musicality ..." (1984a:35). This is perhaps because extensive practice focuses the attention on the physical rather than the spiritual aspects of the music.

However, During does also cite examples of musicians such as Āqā Hossein Qoli, the most renowned *târ* player of his time, who reputedly practised the *radif* for many hours every day, and nowadays certainly, the idea of intensive practice is more common. This is possibly a result of the greater value attached to virtuosity, as well as the place of practice in western music. Yet "practice" (*tamrin*) still generally means practising the *radif*, rather than "practising improvisation", which is regarded as a contradiction in terms. Berenjiān, for
example, initially reacted strongly to the idea of musicians practising anything other than the material of the radif itself, which he likened to the practising of studies in western music. Bedâheh navâzi, he maintained, is not something which one practises. However, he then proceeded to explain that whilst "fel bedaheh should just be on the spur of the moment [dar hamoon lahzeh]" (Interview 7.12.89), many musicians do in fact prepare their performances beforehand. During expresses similar ideas, relating this to the element of risk presented to the musician in the performing situation:

Rather than assume the risks involved in creative inspiration, it is standard [for the performer] to prepare his solos, implicitly presenting his arrangements or compositions as spontaneous creations. (1987c:140)

Zonis suggests that such preparation can be attributed to the time limits imposed by commercialisation of the music, claiming that in the traditional informal setting the music is "... truly extemporaneous." (1973:102), without elucidating exactly what this means. Pâyvar explained that the formal concert situation, and in particular group performance, has made it necessary for musicians to plan and agree upon certain aspects of the music beforehand, such as which gushehs to play and the inclusion of pre-composed pieces such as a pishdarâmad or reng, in particular because of the time limits which have to be respected in concert performances. The same points also apply to the recording (or broadcasting) studio, with the added factor that "... a recording remains as an example [namâyandeh] of the work of that musician ..." (Pâyvar, Interview 8.11.90). As a result, musicians naturally regard the context of a studio as representing a particular challenge and requiring some preparation in contrast to the informal, traditional majles setting (private gathering of music-lovers, usually friends and acquaintances), which is perhaps more conducive to free, unprepared improvisation. The effects of changing performance contexts on the concepts and practice of the music will be discussed further below.

Meshkâtiân corroborated some of the above points, but claimed that his improvisations are created at the time of performance, regardless of the context:

The improviser does not practise improvisation [beforehand]. If I
have a concert, I prepare by playing studies [études] to warm up and relax. The music must be the expression of that moment. (Interview 20.7.92)

However, Meshkātiān also stated that in a group performance he would usually decide, together with the other musicians and prior to the performance, which gushehs to play and the order in which the individual instruments would play them. There thus seems to be an implicit difference between decisions of overall structure which may be made prior to a performance as compared with the internal musical details which are expected to be the "expression of that moment" (ibid.).

3.1.5 Conscious or Subconscious?

Whilst it is acknowledged that a certain amount of preparation is necessary, particularly in points of overall structural organisation, and especially with the growing number of group performances, there is still an ideal amongst musicians to the effect that although the radif should be practised thoroughly, performances should be unprepared and spontaneous. In his study of dastgah Chāhārgāh, however, Nettl found many regularities which led him to conclude that "... preparation and planning play a substantial role ..." in the performance of the music (1987:64; see Chapter One for similar issues which arose in Nettl and Riddle's analysis of the playing of Lebanese musician Jihad Racy). These two "realities" - the perceptions of musicians on the one hand and the findings of the analyst on the other - do not invalidate one another: one of the aims of this study is to comprehend and account for the differences between the two, and to explore ways in which each perspective can enrich the other.

For example, even if an improvised performance is played without any prior conscious preparation, there will be pre-determined aspects of the music in addition to the material of the radif, such as the habitual patterns of playing which have formed over the years, whether or not these are directly derived from the radif, and whether or not the musician is aware of them. For Berenjiān, not only was the idea of consciously preparing a performance unacceptable, but the idea of musicians subconsciously developing individual idiosyncrasies was also met.
with scepticism. To the suggestion that there might be aspects of the music other than the material of the *radif* which remain unchanged from one performance to another, he responded, "No. *āvāz* changes. Unless the musician has sat down for ten or twenty days to practise exactly what to play." (Interview 7.12.89). This raises the wider question of the extent to which any kind of creativity in the performance of this music is "conscious", whether in the use of materials from the *radif*, from past musical experiences, or of totally novel and spontaneous musical patterns. Some writers have suggested that much of what happens in the improvised performance of Persian classical music is subconsciously embedded in the mind of the musician, who apparently:

... does not calculate the procedures that will guide his playing. Rather he plays from a level of consciousness somewhat removed from the purely rational. (Zonis 1973:125)

Zonis maintains that performers play "intuitively", often in the "trancelike state" achieved during playing (ibid.). Similarly, both Sādeghi (1971) and Caron and Safvate (1966) mention intuition as an important part of performance, but intuition which (almost paradoxically) must be cultivated by years of work. Some skills:

... can be learned from the masters but others have to be intuitive and gained only by a great amount of practice. (Sādeghi op.cit.:120)

... it is important to have a sense of creation, no doubt partly innate, but which cannot be developed without many years of hard work. (Caron and Safvate op.cit.:129)

On a number of occasions, Berenjiān used the word *nākhodāgāh* with regard to performance, a term of which the closest English translation is "subconscious":

For example, if a musician wants to perform *zābol*, he will take the pitches of *zābol* and play around with them; and *nākhodāgāh* [implying the absence of conscious intention on the part of the musician], the music remains close to the *radif* ... (Interview 10.11.89)
However, he stressed that this can only be achieved: "... from playing the radif many times." [az bas radif-o hay zadeh]. Pâyvar's response to a question concerning the use of compositional techniques such as sequence, extended repetition, and varied repetition (to be discussed in Chapter Six) was interesting in his use of the words hessi (lit. "intuitive") and tabii (lit. "naturally"): 

This is really something intuitive. The musician has experienced/felt [hess] it and it comes naturally ... it is not worked out [consciously] [hesāb nemikoneh] ... It is intuitive, but based on what a musician has already heard. He doesn't think about it - "now I'll go up one pitch, now I'll come down again" [in the case of sequence] - it just happens like that. (Interview 8.11.90)

Indeed, Meshkâtiân claimed that "When you are performing, if you think about what comes next, the music will go wrong [kharāb misheh]." (Interview 20.7.92).

The above points relate closely to the earlier discussion of the "motor grammar" of the music, which develops through extended exposure to the music, and which in a sense "takes over", allowing musicians to perform with a minimum of prior planning, sometimes in a transcendental state.

The question of terminology is important here. The numerous quotations in this and the preceding chapter indicate that Persian musicians can be highly eloquent when discussing matters of performance, but that they tend to focus on aspects of the music other than the detailed analytical dimension. As in the case of teaching (see Chapter Two), this may result from the relative dearth of technical musical terminology in Persian, with which to discuss such matters:

... a musician is often unable to explain precisely what he is doing during his improvisation ... [there is] little indigenous methodology or terminology on which to base a study of improvisation. (Zonis 1973:98-9)

As will be seen in the following chapters (and as discussed briefly in Section 3.1), some aspects of the music - for example, the order of gushehs in a dastgāh, the

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For further discussion of this aspect of the music, see Chapter One, Section 1.4.3.
notes of *ist* (final resting note) and *shāhed* (tonal centre)⁶⁴ - have available terminology and are readily discussed by musicians. It might be suggested that these are part of what could be termed the "immediate" memory, since musicians would seem to be fully aware of them. Information regarding compositional techniques such as sequence and varied and extended repetition, also perhaps lie in the "immediate" memory, since these are acknowledged by musicians when pointed out, but they are not generally discussed, largely owing, it would seem, to the terminology factor (although it is interesting that Meshkātiān used the expression *motif gardooni* [lit. "spinning out/turning a motif"] to discuss the development of a musical idea [Interview 20.7.92]. The author has not encountered this expression elsewhere). Finally, there are many aspects of musical performance which appear to lie in the "deep" memory, such as particular patterns and movements (including the "motor grammar") which shape music-making and which underlie much of the character of Persian music, and which are used intuitively by musicians as a result of many years of playing and listening.⁶⁵

Since technical terminology is not available for certain aspects of Persian classical music, which musicians thus tend not to discuss, the assumption among scholars has continued to be that these aspects of the music - for example, the use of compositional techniques in performance - exist at a level below that of awareness. However, Berenjiān suggested that such terminology might be developed in the future (Interview 30.7.90), and indeed Meshkātiān stated that musicians in Iran are currently trying to reach agreement on the use of technical terminology (Interview 20.7.92). Such developments will clearly have implications in terms of the dynamics of the tradition, enabling musicians to discuss details of musical composition of which they may hitherto have been largely unaware, and thus in turn affect the performance process.

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⁶⁴ These terms will be discussed more fully in Chapter Four.

⁶⁵ The terms "deep memory" and "immediate memory" as used by During (1987b:41), would seem to be particularly suitable substitutes for words such as conscious, preconscious, and subconscious, which are often problematic when used out of the context of psychology (and when dissociated from concepts of repression). However, many writers have used the latter terminology with reference to music, and the reader is referred in particular to Walker (1962:127-148) for an interesting discussion of the role of the "musical unconscious" in the creative processes of western composers.
3.2 Changes in the Concepts and Practice of Creativity

Some of the ways in which the teaching of Persian classical music has changed as a result of wider socio-cultural change in Iran since the early twentieth century were considered in Chapter Two. There have also been important changes in concepts of creativity, and these have inevitably affected the relationship between radif and performance, and the resulting musical practices. Studying any kind of change in this music is hindered by the scarcity of historical documentation and sound recordings and the ambiguity of such data when it is available. Moreover, it is partly this fragmentary and often contradictory evidence which has produced the complex web of debate among musicians concerning earlier performance practices, in particular the degree of creative licence formerly exercised by musicians. On the one hand, it is claimed that there is more improvisation today than in the past, according to some writers and musicians because many performers no longer have adequate knowledge of the models on which improvisation is based - a knowledge which is crucial to improvisation - and their performances are therefore without structure and direction:

> In this century Persian musicians [improvise] ... more freely than before. Therefore, their connection with the traditional music is breaking apart, and their knowledge of the radif is diminishing. Each generation develops its own repertory which suits its own specific idea of improvisation. (Sădeghi 1971:148)

This tendency may have been intensified by greater familiarity with (and perhaps a certain misunderstanding of) western concepts of improvisation, which has perhaps given musicians licence to improvise more freely than in the past. Indeed, this was also the source of Borumand's unease regarding improvisation as seen in the quotation earlier. It has been suggested that the demands and increased pace of modern life have reduced the number of years of study for musicians and broken down the intense relationship between pupil and ostād, resulting in a decreased respect for the traditional repertoire and the depth of musicians' "immersion" in the tradition.

Pāyvar also considered musicians to be freer in performance today, not
necessarily through a want of knowledge, but simply because there are fewer restrictions on musicians in comparison with the past:

Yes, I think that there is more improvisation today than in the past. They were stricter at that time ... until the time of Darvish Khan and Vaziri, when musicians found a little more freedom. (Interview 8.11.90)

Borumand in particular was concerned with preserving what he regarded as the "authentic" *radif*, his own version of Mirzâ Abdollâh's *radif* generally being considered to be the most "authentic" version of the classical repertoire (see Chapter Two). Borumand claimed that the *radif* was formerly presented with very little variation in performance, and that it was musicians of the first half of the twentieth century (mentioned above by Pâyvar) who began the process of diversification. Borumand saw himself as standing against this trend and was somewhat critical of musicians who departed creatively from the *radif*:

The relationship of the *radif* to performance did not interest him greatly. He asserted that in earlier times, musicians performed the *radif* itself in public, deviating very little; and that the notion of improvisation was a more recent development. But on the other hand, he agreed that each person performed the *radif* in his own way, and that its structure and character depended on the mood of the occasion. (Nettl 1987:143)

For Borumand, knowledge of the *radif* was the most important measure of a performer's musicality (ibid.:145). As Nettl has pointed out, Borumand's ideas concerning the tradition and changes in performance practice were by no means typical. However, his influence as a teacher was significant, and can clearly be discerned in the performances of his pupils, which do tend to demonstrate a closer relationship to the *radif* than those of other musicians, particularly musicians from Borumand's own generation.

On the other hand however, there is also evidence that musicians today improvise *less* freely than in the past:

Since the older musicians tend to deviate more from a norm, or to exhibit more variety in performance style and thematic content, one
might wish to assume that there is now less variety in the range of performances ... than was the case in the past. (Nettl and Foltin 1972:36)

Certainly, performances by older musicians such as Ahmad Ebādi (1907-1994), Jalil Shahnāz (b.1921), Bahārī (1906-1995), and Pāyvar (b.1932) analysed as part of the present study do tend to be less predictable and more varied than many of the younger musicians, particularly those who studied with Borumand. Interestingly, writing fifteen years later, Nettl suggests that even in the preceding twenty years, there had been a decrease in improvisation with performances more "pre-determined" and musicians relying on memory to a greater extent than formerly (1987:158). Some writers claim that musicians are losing the ability to improvise and therefore find it easier and less risky to stay close to the radif than to embark on creative explorations. This trend may be a manifestation of what Nettl calls the "... respect for standardization in modernized society." (ibid.:15), which has also been clearly seen in the increased use of music notation and sound recording in the course of this century. Indeed, Modir suggests that the diminishing skill of improvisation is partly attributable to the use of notation, citing the earlier writings of Caron and Safvate (1966:193):

... since the method of Western notation for teaching the radif has developed, the free unrestricted sense of improvisation characteristic of early masters' performance styles has been regressing. (1986b:65)

This variety of perceptions (often apparently contradictory) among musicians regarding moves towards diversification (more improvisation) on the one hand, and standardisation (less improvisation) on the other, generally share one important (and highly questionable) implication: that musicians today do not know the radif well enough. In the first case, this leads musicians to rely on their own creative fantasies; in the second, musicians stay close to the radif, since they do not know it well enough to be able to depart creatively from it. In fact, whilst it is difficult to ascertain precisely the ways in which the repertoire and its realisation have changed since the last century, musical analyses comparing earlier performances with more recent renditions suggest that both diversification and standardisation have been in evidence in the course of the twentieth century, resulting in performance practice ranging from those musicians who improvise
freely to those who remain close to the *radif* in performance. Possible reasons for these changes will be suggested in Section 3.2.2 below.

### 3.2.1 Changes in the Identity of Musical Creator

Whilst the figure of the composer as distinct from the performer was unknown to Persian classical music prior to this century (in contrast to the neighbouring Turkish tradition), increased contact with western culture and concepts of creativity and in particular the use of notation have gradually led to changes in long-held concepts about the creative roles of musicians. Of particular significance has been the emergence of the composer (*āhangsāz*, lit. "song-maker") as a distinct figure from the performer (*navāzandeh*, "instrumentalist"; *khānandeḥ*, "singer"). Of course, the creative role of the performer continued to be acknowledged, particularly by older musicians, as illustrated by this statement of Āqā Hossein Qoli, quoted by several writers:

> When H.Gholi (d.1915) was asked why he did not "compose" fixed pieces like his pupils, he replied haughtily: "what I compose is what I play". (During 1987b:34)

However, the word *āhangsāz* in Persian usually implies the use of notation in composition (perhaps to an even greater extent than "composition" in the West). Classical musicians now compose ensemble pieces such as *pishtarāmds*, *tasnifs*, and *rengs*, to be played during a (largely improvised) *dastgāh* performance. Such genres are generally attributed to a named composer, have a regular metre, are usually notated (but are not performed from notation), and are played by an ensemble. They have gained in popularity during this century and are now a standard part of *dastgāh* performances, where they either frame or provide contrast with the main unmeasured solo *āvāz* sections. The rise in number and importance of these measured genres in the course of this century is in part related to western concepts of creativity, the desire of Persian musicians to emulate certain attributes of the western musical system, such as large ensemble performances (which had not been possible previously in a music of predominantly unmeasured meter), and also the availability of notation. Whilst these new genres almost certainly had roots in existing types of popular and folk
Not only was composition taught at the University of Tehran, but as mentioned in Chapter Two, several Iranian composers were trained in Europe and North America. These latter have tended to compose for western orchestral, chamber, and choral forces rather than the genres mentioned above. However, some of these composers have taken inspiration from or used material from the radif in their works, for example, "Mahur I, II, and III" by Alirezâ Mashâyekhi (Nettl 1987:125). It is significant that, in line with the generally high status of western concepts as an indication of Iran's "progress" and modernisation (until 1979 at least), the composer using notation (particularly those trained in the West, see Footnote 23) has enjoyed a somewhat higher standing within society than the traditional improviser. Today, perhaps following western models, there is a clear distinction between the performer - navâzandeh/khânandeh - no matter how creative s/he is in performance, and the composer - âhangsâz - working with notation. Indeed, the same person may fulfil both roles (Alizâdeh, for example, has composed a number of orchestral pieces, including Nei Navâ for solo nei and Orchestra), but is clearly perceived as being a "performer" in one context and a "composer" in another. Furthermore, this has perpetuated the idea that there are qualitative differences between creativity which takes place in writing and that which takes place in performance, an idea directly derived from western concepts of music-making discussed in Chapter One.

Another factor to consider in relation to changing concepts of creativity is the education of musicians, discussed in Chapter Two. Contemporary musicians can be broadly divided into those born before and after 1940. The older generation, although familiar with some western concepts, still adhere largely to traditional ideas about the amateur musician and a certain way of life. This contrasts somewhat with the outlook of the younger, largely professional body of (mainly) university-educated musicians. Although many, following their teachers, have

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66 It should be noted that despite the general increase in composed genres, the main part of classical performances (the  dword is still largely solo and unmeasured, with the performer exercising creative freedom, and it is the dword sections of the music on which the present study will focus.
endeavoured to preserve the musical traditions, their way of life is often very
different from the older generation, and they have usually had a broader
education and musical training. Whilst maintaining allegiance to the teachings
of masters such as Borumand, younger musicians have also been influenced by
western ideas, and have endeavoured to find new paths for the development of
the classical music, in particular since 1979.

3.2.2 Factors Affecting Changes in the Concepts and Practice of Creativity

Many of the factors which have affected changing concepts of musical creativity
and the accompanying trends of standardisation and diversification in practice,
can be directly explained in terms of wider socio-cultural changes in Iran. Those
which will be considered in this section (and some of which have been discussed
with reference to changes in the processes of learning) include the introduction
of musical notation and sound recording; the rise of the mass media; changing
patterns of musical education within the country; changing performance contexts
and audience identity; and the introduction of western musical instruments into
Persian classical music and the changing relationship between instrumental and
vocal music. As mentioned earlier (see Footnote 40), a number of authors have
written about the processes of change in the Persian classical tradition, although
mainly in the context of pre-1979 Iran. The reader is referred to these writings
for further details on this subject.

3.2.2.1 Sound Recording, Broadcasting, and Notation

The gradual introduction of notation, sound recording, and broadcasting to Iran
during this century has had a significant bearing on the dynamics of the Persian
classical tradition and on musicians' perceptions of the radif. This has manifested
itself most strongly in changing concepts of personal variability within the
tradition, the very "freezing" of music on magnetic tape and paper seeming to
have perpetuated the idea of a static tradition, and thus affected the dynamics of
the music itself. Whilst the concept of individual creativity is not new to the
Persian system, it would seem that the idea of a single, relatively stable model
underlying that creativity may be. Thus, there has been a strengthening of the idea of a "definitive" version of a particular piece of music, the very fact of a particular version being recorded giving it a certain authority over and above other versions. Specifically, the idea of the definitive radif has become stronger in the course of this century, and the situation has moved from one in which each master developed and taught his own radif on the basis of his own training and other musical experiences, to one in which most masters teach one of a number of closely related variants of the "standard" radif (see Chapter Two).

Furthermore, as mentioned in Chapter Two, sound recording and broadcasting may have encouraged increased standardisation through the opportunities which they afford musicians to repeatedly hear the same version of a piece of music. This contrasts strongly with the situation of former generations where individuals (both musicians and non-musicians) would never have heard exactly the same rendition of a piece more than once, their musical experiences encompassing a kaleidoscope of continually changing interpretations of each piece of music. On the other hand, it can be argued that access to the performances of a wider variety of musicians through sound recordings and broadcasting has actually enabled musicians to hear a larger number of variants than formerly. Indeed, it seems likely that the availability of many other kinds of music (both Iranian and non-Iranian) has led to a widening, rather than a narrowing, of musicians' experiences.

The reservations held by some teachers regarding the use of musical notation were mentioned in Chapter Two. Since notation is used in fairly specialised contexts (and is not generally used in performance) it has perhaps had less of an immediate impact on concepts of creativity within society at large in comparison with sound recording. However, it is important to consider the symbolic value which has been accorded to musical notation in Iran (Nettl 1987:119,136). To those who wished to elevate the status of Persian classical music, it has been a source of pride that the radif could be notated in the same way as western music. However, underlying such ideas was a certain misconception regarding the relationship between notation and performance in western music: for many musicians notation represented the ultimate means of preserving the tradition, thus overlooking the crucial role of the oral tradition in maintaining any music.
Moreover, notation may have affected musical practice in more subtle ways. It was suggested in Chapter One that some aspects of improvisation may depend upon the interaction between instrument morphology and the body of the musician. It is possible that with the increase in pre-composed notated pieces within *dastgāh* performances (discussed above), musicians learning pieces which have been "worked-out" on paper or in the mind (rather than at an instrument) may be playing patterns which are less determined by the hands and the body and more by the ear and eye. These will presumably become part of a musician's store of patterns and subsequently affect future playing. Of course, since many composers (using notation) are also performing musicians, some of the written patterns may be derived from the composer's experience as performer, in which case, patterns emanating from, for example, the *nei*, may be notated and played by another musician on the *tār*, thus entering the "pattern vocabulary" of the *tār* player. This is clearly a complex area and highlights just one of the many ways in which musical notation may affect a musical tradition.

3.2.2.2 Performance Contexts

Concepts of creativity have also been influenced by changing performance contexts in the course of this century. Persian classical music developed at the royal courts of Iran over many centuries, and was traditionally heard at court, as well as in informal gatherings of musicians and music-lovers held in homes and gardens (these gatherings are known as *majles*). The audience for this music was thus relatively restricted, and generally comprised musically educated (or at least informed) individuals. The private setting was partly a factor of the religious proscription on public music-making, and was in many ways well suited to this intimate music, with musicians being highly receptive to the mood and expectations of the listeners, and fairly unrestricted in the contents and length of their performances.67 During (1987a:18) suggests that improvisation flourishes best in informal situations, and although the cross-cultural validity of this statement has yet to be clarified, Persian musicians do seem to prefer playing in such situations, as was clear in Pāyvar's comment:

67The importance of performance setting and audience identity in the performance process was discussed in Chapter Two (Section 2.2.6).
The best place to play is the *majles*. There is more improvisation in a *majles* - everyone is relaxed and seated comfortably ...

(Interview 8.11.90)

With the notable exception of the court musicians, the most respected musicians before the early decades of this century were amateurs who made their livings by other means, and it may be that the freedom implied by the status of amateur was associated with the very informal performance contexts which allowed such freedom in performance, and which contrasted sharply with the constraints seen to be inherent in the status of professional musician (see Nettl 1978:152-3 and 1987:119-20,143-4, amongst other sources). As musical professionalism started to gain acceptance in the course of this century, it was largely within state organisations that musicians could find employment (Zonis 1973:198). To some extent, the new patronage of the state replaced that of royalty (although, until 1979, royal support was still provided for some musicians), and whilst state employment did afford musicians some degree of respectability, many still regarded the status of "professional" as inhibiting to their creative freedom and preferred to remain amateur musicians, working in other professions, and playing music in their leisure time.

With the gradual establishment of public concerts in the early years of the twentieth century the classical music emerged from such seclusion and informality, and musicians were required to accommodate themselves to the time limits of a concert with a pre-arranged programme, and to play to larger, more distant, and less knowledgeable (and therefore possibly less receptive) audiences. This was similar to the situation with sound recording and broadcasting. Early in the twentieth century, The Gramophone Company was

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68 This is similar to the situation in Afghanistan (see, for example, Baily 1988:101-2, 118-20), and also North India, where Neuman (quoting from Gaisberg 1942:57) reports that some of the earliest musicians to be recorded by the Gramophone Company insisted that "... the word 'amateur' should be printed on the record label" (1990:216), particularly the female musicians, who wanted to distance themselves from the traditional association of women performers and prostitution. As in Iran, the situation in North India has changed somewhat since the early twentieth century when these recordings were made.

69 Khâleqi (1983b:83) gives 1906 as the date of the first public concert, this being a time when the prohibition of public gatherings in Iran was lifted (see also Zonis 1973:144 and Nettl 1978:151-2), but such events did not gain any regularity until the 1930s. Mansuri and Shirvani (1977:134ff) give details of a number of public concerts held in Tehran from the late 1920s to the early 1940s, as well as concerts held in the main concert hall in Tehran - the Rudaki Hall - between 1965 and 1975 (ibid.:174-179).
recording in Iran, followed later by other western companies, and as mentioned in the previous chapter, some musicians travelled to Europe for recording sessions. At this time, musicians accustomed to playing for hours were expected to perform a dastgāh to fit onto one or two sides of a 78rpm disc: no more than a few minutes of music. The absence of an audience to respond to their creativity as well as the time limit presumably affected the performances of those first recording musicians. With the rise of the mass media, and in particular the advent of radio (Radio Tehran was established in 1939), musicians became more accustomed to playing in recording studios and within certain time limits: the music programmes broadcast by Radio Tehran were initially fifteen minutes long, and were later lengthened to form half-hour programmes. The radio was subsequently joined by television (the radio and television stations were later combined to form Radio Television-e Melli-e Iran [the National Radio and Television Organisation]), which, however, never achieved the popularity of radio as a medium for listening to music.

Recording times have lengthened considerably since the days of the 78rpm disc, and playing in recording studios has become common practice for musicians. Even so, musicians do still play in informal gatherings, and on one such occasion, attended by the author, the solo nei player (Mohammad Musavi) commented that each listener was contributing to the music by his or her very presence. During comments on the effect which performance contexts without a direct audience may have on the performing musician:

> Without the traditional responses of the public, the artist can no longer evaluate the impact of his performance and the feedback mechanism is blocked ... (1987a:21)

Another dimension of changing performance contexts (discussed earlier) is the greater risk inherent in playing to a large audience or making a recording which may be made available to millions of listeners, and which may, moreover, remain for posterity. It would thus seem that the move from informal to formal

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*According to Gronow, over 14,000 recordings were made by The Gramophone Company in Asia and North Africa between 1900 and 1910, of which 221 were from Iran (1981:255).*

*For further discussion of the rise of the mass media in Iran, the reader is referred to Sepantā (1987) and Nettl (1978:154-156). See also Klitz and Cherlin (1971) and Beeman (1976).*
performance contexts has worked against the improvisation ethos, encouraging musicians to produce performances which are more likely to be prepared prior to a performance, both in order to meet certain time requirements, and also through the desire to present a "polished" performance.²

Changing audience identity and expectations may also have affected both the concepts and practice of creativity. Modir suggests that, among other things, the musical knowledge of an audience may directly affect the degree to which a performer adheres to the material of the radif in performance. If the audience comprises connoisseurs who have some knowledge of the radif (which would have generally been the case in the traditional informal settings in the past) musicians will be less likely to adhere strictly to the model, and will use the opportunity to demonstrate their ability to improvise. Playing to an audience unfamiliar with the repertoire, a musician might stay close to the radif and outline the basic structure to the audience (1986b:67). However, it might also be argued that a musician playing to an audience ignorant of the radif might feel less compelled to respect the tradition, and therefore deviate from it, particularly in the case of a musician less thoroughly immersed in the tradition. In any case, a subtle communication exists between the musician and the audience, the latter ranging from an audience with no knowledge of the musical system (for example, an audience of non-Iranians in the West) to one with a detailed knowledge of it (in the case of an audience comprising other Iranian musicians). Modir thus posits that the identity of the audience, as well as their expectations and responses (obviously closely related to their knowledge of the tradition) directly affect the process of improvisation, and changes in this aspect of the tradition will thus inevitably affect the degree of adherence to the radif. Although this may be true for some musicians (Modir bases his conclusions on private interviews with the musician Mahmoud Zolfonoun), both Päyvar and Meshkātiān in interview stated that whilst the mood and response of the audience were factors which affected their performances, the identity and musical knowledge of the audience were not, and indeed both musicians implied that this would be "compromising" the music to the audience (of course, the extent to which such factors may be subliminal is difficult

²Similar observations are made by El-Shawan regarding the effects which changing performance contexts in the course of this century have had on the improvised Egyptian genres of taqsim and layali (1987:154-5). The implications of developments in recording technology and the performance situation of the recording studio for improvising jazz musicians are discussed by Berliner (1994:473-484).
In relation to this, it is important to note that whilst Iranians are obviously familiar with the sound and ethos of the classical music, detailed knowledge of the repertoire remains a relatively specialised domain. Few non-musicians are able to identify specific sections of the repertoire let alone judge the degree of adherence to the model of the radif. This leads to the important and hitherto unexplored question of the ways in which non-musicians experience this music: what does the music "mean" to them and how do they relate to it? During (1987a:22) suggests that one might talk of an "expressive" model as found in the minds of non-musicians as opposed to a "formal" model in the minds of trained musicians or those who know the radif. This is an interesting suggestion (although it might be more useful to regard this in terms of a continuum rather than as absolutes), and is clearly an important area for future research.74

It should also be noted that whilst public concerts became common in Iran, it has always been difficult to measure the strength of the musical tradition by the level of public music-making. Not only does much music-making still take place in private, but media such as broadcasting and sound recording have been popular ever since their advent in Iran (particularly the audio cassette when it appeared in the 1960s)75, enabling people to hear distinguished musicians in their own homes. After the 1979 revolution, musicians faced severe restrictions on public music-making and it is only since the end of the Iran-Iraq war (1988) that public

73 The reader is also referred to Berliner, who provides a detailed account of the effect of audience identity and reception on the improvised performances of jazz musicians, and the ways in which musicians respond to different types of audience (and, significantly, discuss their responses), particularly in relation to the level of knowledge which members of the audience may have of the specific style or idiom being played (1994:455-473).

74 The ways in which musical training may affect the perception and processing of musical sounds is also an area of interest to music psychologists. Sloboda, for example, mentions the work of Bever and Chiarello (1974), who conducted experiments in musical pattern recognition by musicians and non-musicians, and found that the musicians who were tested performed better when music was played into the right ear - the sounds therefore being processed by the left (analytical) cerebral hemisphere - whilst for non-musicians the opposite was the case (1985:264).

75 Whilst relatively little has been written about this aspect of musical culture in Iran, Sepantä (1987) presents a detailed account of the history of sound recording and broadcasting in Iran. The reader is also referred to Manuel (1993) for a penetrating study of the rise of the audio cassette in North India.
concerts have been held again.\textsuperscript{76}

### 3.2.2.3 From Vocal to Instrumental-Based Tradition

A further area of relevance to this discussion is the changing relationship between vocal and instrumental music. In Iran, as in many parts of the Middle East, vocal music has traditionally enjoyed a higher status than instrumental music, partly due to the long-standing association between music and poetry, which like other non-musical arts such as painting, architecture, and calligraphy, has not experienced the same degree of hostility from Islam that music has. In Persian classical music, the presence of poetry may have lent a certain respectability, particularly since most vocal music is set to the words of highly regarded medieval Persian poets such as Sa’di (1184-1291), Jalâl-e Din Rumi (1207-1273), and Hâfez (1325-1389). Moreover, the Islamic disapproval of music is, strictly speaking, aimed at instrumental music, which has traditionally had closer associations with dancing and frivolity than has vocal music. A clear division formerly prevailed between singing and chanting (\textit{khândan}, lit. "to read") and instrumental music (without any singing; \textit{musiqi}). \textit{Khândan} is acceptable within Islam through its association with the written word and indeed the only music heard in the mainstream religious context in Iran is unaccompanied vocal music.\textsuperscript{77}

It seems that prior to this century, Persian classical music was predominantly vocal (Nettl 1987:134) and that the role of the instrumentalist was generally to shadow the vocal line and to provide music between the sections of sung poetry. Whilst there may have been some latitude for creativity in these interludes, the

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\textsuperscript{76} An interesting aspect of private music-making was reported to the author by a recent visitor to Iran. Since women musicians face restrictions when performing in public and women singers may not be heard at all, concerts are being held (with the approval of the government) in large private residences with women musicians performing for all-female audiences who purchase tickets as in a public performance. Such concert venues apparently may hold audiences of up to three hundred people, and might be regarded as "semi-public" music-making.

\textsuperscript{77} The main exceptions to this are the use of instruments (mainly large frame drums) within \textit{sufi} groups; and in the religious "passion plays" called \textit{ta'ijeh} in which the martyrdom of Imâms Hassan and Hossein are enacted, and which are performed in the holy month of \textit{moharram} (see Caron and Safvate (1966:204-206), Zonis (1973:9), and the comprehensive study by Massoudieh (1988)). The reader is referred to Reckord (1987) for a detailed study of religious chant in present-day Iran.
instrumentalist was generally expected to imitate the vocal line fairly precisely. Indeed, this was an important part of an instrumentalist's training, and according to Caron and Safvate (1966:192-3), formed the most advanced stage in learning, demanding a thorough knowledge of the basic repertoire. They state that the older masters attached great importance to this part of a musician's instruction, and anyone incapable of "replying" to a singer was not considered to be musically mature. This technique is still required of instrumentalists, and was being taught at the University of Tehran in the 1970s under the name of javäb ävâz (lit. "answering the voice"). Indicative of the prominent role of the voice is the fact that the main unmeasured sections of performances are still referred to as ävâz (lit. "song", "voice"), even when these are played by solo instrumentalists.

In the course of this century, however, solo instrumental music has gradually been gaining acceptance, such that it is now quite usual for a performance of Persian classical music to take place without a singer. Nettl suggests that this may have come about as a result of western influence and the relative importance of instruments in western music (op.cit.). It may also be related to the progressively higher status enjoyed by music as an art during this century (a result both of westernisation and modernisation), no longer dependent upon poetry for respectability. For example, it is interesting that javäb ävâz as part of an instrumentalist's training is rarely mentioned by writers after Caron and Safvate (who, incidentally, do not mention the Persian name, but translate into French and describe the technique). This is not to say that instruments do not still accompany the voice, but is perhaps an indication of the recognition which instruments have gained. Alizâdeh, in particular, has worked towards the "emancipation" of instruments from the voice, maintaining that the "... sheltering of music behind words inevitably resulted in the potential of the voice and poetry affecting the music ..." (Sarkoohi 1989:37), particularly the rhythms of the music, which he regards as limited by the prosody of poetry. Discussing one of his pieces, he states:

> The basis of this work was the relationships between the instrumentalists ... and the voice was just where it should be, like another instrument and not more [important]. (ibid.:38)

As Persian music has become more "instrument-based" it may be that the ways
in which instrumentalists create in performance has changed. There is some evidence to suggest that distinct instrumental styles have become more accentuated, as musicians have begun to explore the specific musical characteristics of their instruments, independent of the voice. In connection with this, and in response to a question about the common use of sequences in Persian music, Berenjiân said:

It’s because of the long neck of the tār and setār [and moving up and down the neck]. Maybe if the kamāncheh or the nei had been more popular, it would have been different. You don’t hear someone play this [sings an upward moving sequence], or very rarely [on the nei]. It usually has long held notes, according to the logic of the nei itself [manteq-e khod-e nei]. (Interview 30.7.90)

The distinction between the radif-e āvāzi (vocal radif, also learnt by nei and kamāncheh players), and the radif-e sāzi (instrumental radif, for struck and plucked stringed instruments), was mentioned in Chapter Two. Nettl suggests that some of the distinctive features of the radif which make it the basis for creativity in Persian music are more highly developed in the instrumental radifs, and relates this to the development of the radif at a time when instruments were gaining in importance (1987:134-5). Similarly, Berenjiân stressed the fact that the central radifs are based on the playing techniques of the long-necked lutes (Interview 30.7.90). Indeed, the rise in importance of instruments may also be connected to their use by individuals at the centre of the tradition, such as Mirzā Abdollāh and Darvish Khān. It is true that the most prominent musicians of this century have generally been instrumentalists. Even so, the continued significance of the voice in the general culture is evidenced by the fact the voice when present, does tend to dominate performances. Moreover, when a talented vocalist such as Shajariân or Shahrām Nāzeri emerges, s/he seems to gain a wider popularity among the public than do instrumentalists.

The development of musical styles specific to instrumental music as opposed to vocal may to some extent have been influenced by the introduction of both western instruments and western concepts of virtuosity. The latter is alien to traditional concepts of musicality in which musicians are judged less by their manual dexterity than by their ability to create and to communicate to the
audience the soul of the music, embodied in the word hāl. Traditionally, there were no exercises to develop physical technique, the radif said to contain all that musicians needed to know in order to play the music. Indeed, the idea still exists that once the essence of the music is understood, technique automatically follows (During 1984a:35), reflecting the fact that the spiritual aspect of the music is still strong.

Nevertheless, there does seem to be a greater preoccupation with technical expertise than formerly among musicians. Thus, for example (as mentioned in Chapter Two), the santur has experienced a significant rise in popularity during the twentieth century. This is an instrument on which the arrangement of strings allows large leaps, fast scalar runs, arpeggios, and a display of virtuosity, all of which are less feasible on other classical music instruments. In addition, the relatively loud volume of this instrument makes it suitable for more recently developed performance contexts, such as concert halls. Similarly the chahārmezrāb, a virtuosic genre (and style of playing) usually constructed over a rhythmic ostinato, has also become popular and can be heard regularly interspersed between āvāz sections of performances. The chahārmezrāb is ideally suited to exhibit the technique of a performer, and may be pre-composed by a named composer (who might also be the performer) or else improvised by the musician. In both cases, the procedures and patterns are generally highly formulaic, and the melody follows the basic outline of a particular gusheh or dastgāh. A large number of chahārmezrābs are performed on the santur and also the violin, instruments eminently suited to the style of this genre. Besides the popularity of the chahārmezrāb, there has been a general increase in the number of pieces with regular metre in performances, both on solo instruments and also in ensemble performances. This is turn has led to a more prominent role for the tombak (goblet drum) which formerly had a relatively low status and which was particularly popularised by the blind virtuoso, Hossein Tehrāni.

Among the western instruments which were introduced into Iran, only the violin, piano, and to a lesser extent, the flute, have been used in classical music. The

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* For discussion of similar changes within the North Indian classical tradition, see Kippen 1988:95-6 and Neuman 1990:217. El-Shawan also notes the growing importance of technical virtuosity in Egyptian music (1987:157).
latter have had little impact, but the violin has achieved remarkable popularity. Before 1979, it was threatening to replace the Persian spike-fiddle, the kamāncheh, as the main bowed instrument of classical music. Indeed, it is probably incorrect to regard the violin as western any longer in the context of Persian music, so assimilated has it become into the musical tradition. The incorporation of the violin into Persian music has been of a very different nature to the case of Indian classical music, where the instrument has become fully assimilated into the sound system (Nettl 1985:47-50). In Iran, the violin has brought with it the sounds and ethos of western music, and indeed seems to have found popularity in large part because of this, in particular its loud volume, and the aspects of virtuosity which its structure allows, such as fast runs and large leaps.

Thus, the shift from a vocal to an instrumental-based tradition and the acceptance of western ideas and instruments seems to have had a definite impact on both the concepts and the practice of musical creativity. Whilst instrumentalists may have felt freer to explore the potential of their instruments independently of the voice, however, this has not necessarily implied greater creative freedom in relation to the radif, but simply different ways of moving on and creating with the instrument.

3.3 Concluding Remarks

This chapter has considered the various ways in which Persian musicians conceptualise and discuss creativity, and the relationship between such concepts and the practice of improvisation, this being central to understanding how creativity takes place in any music. This has included an examination of the ways in which such concepts and the resulting practices have changed as a result of wide-sweeping socio-cultural changes in Iran in the course of this century. A performance of Persian classical music is clearly a complex meeting and negotiation of many factors, including the material of the radif itself and the musician’s understanding of it, past musical experiences, instrument morphology, and the particular performance setting. The musical analyses which follow in Chapters Four to Seven will examine specific sections of the Persian classical
repertoire, in order to gain a deeper insight into both the practice of creativity, as well as the relationship between musical creativity and the underlying concepts discussed in this chapter.
Chapter Four *Dastgâh Segâh* and its Structural Organisation

4.1 Introduction

Whilst most publications on the subject of Persian classical music do discuss improvisation, relatively few include a detailed exploration of the specific ways in which musicians generate musical material in performance. Indeed, there has been a marked tendency for scholars to use generalisations, and in particular the word "improvisation" itself, as a means of obviating the need to enter into detailed musical analysis. Exceptions to this, however, include the early study by Wilkens comparing the performances of two santur players (1967), and Massoudieh's study of *dastgâh Shur* (1968). Sâdeghi discusses improvisational techniques in some detail (1971:75-135, although most of his examples are taken from the radif, see Chapter Six, Section 6.1.1), lending particular insights from the perspective of a performing musician, and Nettl has also examined improvisation in a number of *dastgâhs*: *Châhârgâh* (with Foltin 1972, and 1987), *Shur* (1987), and *Mâhur* (1987). Farhat presents transcriptions of improvisations of the central gushehs of each *dastgâh*, although the focus of this publication is a discussion of the essential characteristics of each gusheh (1990), rather than the actual processes of improvisation. The analyses of the present study range from a consideration of overall structural organisation of the music through to more detailed aspects of the music (with a particular focus on aspects of pitch), and aiming in particular to reach a deeper understanding of the relationship between radif and performance. The analytical discussion focuses mainly on *dastgâh Segâh*, but Chapter Six also includes a brief section on *dastgâh Mâhur*. The present chapter will consider the sectional organisation of several performances and radifs of *dastgâh Segâh*\(^7\), following which Chapters Five to Seven will present analyses which enter into increasingly greater musical detail.

\(^7\) In Persian, the correct designation employs the possessive form: "*dastgâh-e Segâh*". In this study, however, for reasons of continuity in the English text, this has been simplified to "*dastgâh Segâh*". Similarly, the parallel construction for gushehs - "gusheh-ye zâbol" - is not used, although in the case of gushehs, it was felt appropriate to use the definite article: "the gusheh zâbol".
4.2 The Structures of Persian Classical Music

As outlined in Chapter Two, the repertoire of Persian classical music comprises twelve dastgāhs. Five of these are subsidiary to the other seven, and are sometimes referred to as āvāz. In turn, each dastgāh comprises a series of modally related pieces known as gushehs (lit. "corner"), which are learnt by students, often in a number of different versions (either in the same or different radifs), and which subsequently become the basis for improvisation in performance. Thus, there is no definitive version of any gusheh, but a number of closely related versions both as learnt in the various teaching radifs and also as heard within what might be called the "performance tradition".

The number of gushehs varies from one dastgāh to another, as well as between different versions of the same dastgāh. Whilst musicians may select which gushehs to include in their improvised performances, there are a number of central gushehs in each dastgāh which are rarely omitted from performances of that dastgāh. The most important gusheh in any dastgāh is the opening darāmad section, which presents and establishes the basic mode of the dastgāh. After the darāmad, a series of gushehs are presented, each with its own name and modal, melodic and, sometimes, rhythmic characteristics. These gushehs explore

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80 Whilst it is necessary to provide some relevant background information on Persian Classical music at this point, this study is not intended as an introduction to the musical system. For introductory texts, the reader is referred to the publications mentioned earlier in Section 2.1.

81 Whilst there is broad agreement among musicians regarding the number of dastgāhs, different versions of the radif can vary in this respect. Thus, for example, the publication of Borumand's version of the radif of Mirza Abdollah (During 1991a) includes Bayāt-e Kord as an "āvāz" (short dastgāh), but this is not found in any of the other radifs under study, and which makes the total number of dastgāhs in this radif thirteen (see During 1984a:114).

82 Whilst the majority of writers refer to the darāmad as a "gusheh" (see, among many examples, Caron and Safvate 1966:109, Zonis 1973:48, During 1984a:141, and Nettl 1987:26), Farhat defines gusheh as "The generic term for individual pieces, other than the darāmad, which make up the repertoire of a dastgāh ..." (1990:22). Similarly, in defining Persian terminology, Sādeghi lists "darāmad" separately from "gushe" (1971:51-2), although he later includes darāmad in his listing of the principal gushehs of each dastgāh (Ibid.:57-8). It is interesting that the latter two authors are both Iranian, and would seem to derive from the fact that in Persian, one never refers to "gusheh-ye darāmad", but simply to the darāmad of a particular dastgāh, for example, "darāmad-e Segāh". It might also be indicative of the fact that the darāmad is the most important section of the dastgāh, and therefore holds a rather special position relative to other sections. Nevertheless, regardless of whether the label "gusheh" is used or not, as a constituent section of the dastgāh, the darāmad is equivalent to a gusheh. Indeed, the author's main informant expressed surprise at the idea that the darāmad of Segāh might be anything other than a gusheh of Segāh. As such, the darāmad of Segāh will, in this study, be treated as a gusheh of Segāh, notwithstanding the complexities of such labelling.
progressively higher tonal centres, usually modifying the "home" mode by altering either the pitches or the relationships between them. The highest point of the dastgāh, the owj (lit. "climax"), is reached towards the end following which the music descends to the final forud (lit. "descent") section in the opening mode. In the course of the dastgāh, the listener is also reminded of the home mode by shorter forud sections between gushehs. The forud, which comprises characteristic patterns and formulae which serve to maintain the unity of the dastgāh, is heard in extended form at the end of the dastgāh, where it brings the music to a satisfactory conclusion. In this way, the overall shape of each dastgāh usually forms an arch comprising a series of rising waves of pitch and accompanying tension, this tension being released in the descent of the final forud section. This might be outlined as follows:

The modal character of each gusheh is largely determined by the functions of specific pitches, and this is one of the few areas of the musical system which is characterised by the use of Persian terminology to refer to detailed aspects of the musical structures. The terms used by musicians to indicate the functions of notes within modes are as follows: shāhed (lit. "witness") is the tonal centre; āqāz (lit. "start") indicates the pitch on which pieces in a particular mode usually begin; ḵīt (lit. "stop") indicates the pitch on which phrases usually end. Some writers use the word "finalis" to indicate the final pitch of a gusheh. Moteqayyer (lit.

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83 Whilst shāhed, āqāz, and ḵīt are clearly of Persian/Arabic origin, finalis is western in derivation. Farhat uses it in preference to "tonic" which he says "... has direct associations with the harmonic system of western music." (1990:24). One might also add that the word "tonic" would imply a certain prominence in the mode which is already indicated by the Persian word shāhed. Zonis mentions "finalis" by way of explaining the Persian word ḵīt, which she equates with the finalis of Gregorian chant (1973:47). During, in direct contrast, makes no mention of Persian terminology, simply substituting the French words note-témoing, note d'arrêt, and note de conclusion for shāhed, āqāz, and finalis (as used by Farhat) respectively (1984a:108). In this, he appears to follow Caron and Safvate, who give both French and Persian terminology, and who also distinguish between the ḵīt itself, which can function as the final pitch of a gusheh as well as at the end of medial.
"changeable") is the name given to a variable pitch within a particular *gusheh* (although there are no *moteqayyer* notes within *Segāh*). Some *gushehs* may be found in more than one *dastgāh*, and this might involve a sharing of specific melodic material, overall shape, or simply the name of the *gusheh*. Whilst a Persian classical performance is usually in one *dastgāh*, there is also a skilled technique known as *morakkab navāzī*, not commonly heard today, in which musicians move between *dastgāhs* using shared *gushehs* as bridges.

As stated in Chapters Two and Three, whilst the core of Persian classical music is in an unmeasured style known as *āvāz* (lit. "song", "voice"), there are also a number of genres which have a regular metre and which can be played either independently or as part of a *dastgāh* performance. These genres - in particular the *pishdarāmad, tasnīf, reng*, and *chāhārmezrāb* - and their increasing popularity in recent years, were mentioned in earlier chapters. In addition, there are a number of *gushehs* which are neither in an unmeasured nor in a strictly measured style, but whose metric organisation is based upon poetic metres, for example *masnavi, hodi va pahlavi, and rajaz* in *Segāh* (as well as a number of *gushehs* in other *dastgāhs*). Indeed, much of the unmeasured *āvāz* style also has close links with poetry, but since this complex area is not directly relevant to the present study, which largely focuses on detailed analysis of aspects of pitch, for the purposes of the following analysis a fairly clear distinction has been made between measured and unmeasured *gushehs*. Those which are partly measured have been classed as one or the other according to how freely the musician uses the metre. The reader is referred to Tsuge (1970, 1974) for a comprehensive study of rhythm and metre in Persian music and the matter is also discussed by During (1984a:142-7) and Nettl (1987:32-4,70-2).

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4.3 Dastgah Segah

Whilst written references to the modal system called Segah date back to at least the late thirteenth century (Wright 1992:481), how close the musical material was to the present day dastgah is a matter of conjecture. Segah is also related to similarly named modal systems in other parts of the Middle East and North India (see Powers 1989 for an overview of the various manifestations of this modal system in the Middle East and also in parts of Central Asia; Ogger (1987) presents a detailed study comparing Segah/Sikah in the Persian and Iraqi traditions). In Persian, Segah literally means "third place", although there is speculation as to whether this refers to the positioning of the finger on the neck of the lute (the instrument on which much of the music theory of the Middle Ages in the Middle East was based) or simply to the degree of the scale. Segah bears a close relationship to dastgah Chahargah (lit. "fourth place") sharing many gushehs in name as well as in general melodic shape and movement, but with a different modal configuration. There is also evidence that other modes were formerly similarly named with reference to degrees of the scale, a vestige of this being found in dastgah Rast Panjgah ("Panjgah" meaning "fifth place"). This dastgah is, however, not related to Segah and Chahargah to the extent that these two are related to one another.\(^{84}\)

Since there is no definitive version of any dastgah, "Segah" refers to a range of variation around a theoretical norm which can be abstracted from the many different musical manifestations which are subsumed under that name. The following description of Segah should therefore be understood as a general abstraction from the wide variation found in practice (and extracted both from the literature and the author’s own experiences). However, this variation is always within controlled boundaries, without which the modal system of Segah would lose its identity. The central gushehs of Segah are as follows: darâmad, zâbol, muyeh, mokhâlef, and maqlub. After the darâmad, each of the following gushehs is based around successively higher pitches, maqlub representing the owj

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\(^{84}\) Farhat (1990:44) also mentions gusheh dogah (lit. "second place") in dastgah Bayâr-e Tork, pointing out the anomaly that whilst Segah and Chahargah are dastgahs, Panjgah is part of the name of a dastgah, and dogah is a gusheh. Moreover, he observes that in the present day repertoire, these are not related by way of pitch positions as their names imply.
of the *dastgâh*, after which there is a descent and return to the tonal area of the opening. In addition to these central *gushehs*, there are a number of shorter *gushehs* in the *radifs* of *Segâh*, heard with varying degrees of regularity in performances. Figure 3 lists the *gushehs* found in the four *radifs* of *Segâh* analysed in this chapter, and the inclusion of these *gushehs* in performances will be discussed below. Whilst the analyses of this study will explore the structures of *Segâh* in greater detail, it is necessary to firstly describe the basic modal characteristics of the main *gushehs* in order to provide a "framework" for the discussion which follows. It should be noted, however, that each *gusheh* comprises much more than a simple hierarchy of pitches, and has its own characteristic melodies and motifs which will be examined in the following chapters.\(^5\)

One of the most distinctive features of *Segâh* is the neutral third interval between the *shâhed* and the third note below.\(^6\)

\[
\begin{array}{c}
\text{\includegraphics[width=0.5\textwidth]{neutral-third.png}} \\
\end{array}
\]

This interval is used extensively in the *daramad* (particularly at the end), in the cadential *forud* patterns which remind the listener of the home mode between each *gusheh*, and finally in the extended *forud* at the end of *Segâh*.

It is important to understand the structure of Persian modal systems in terms of

\(^5\) For further information on the general characteristics of *Segâh*, the reader is referred to Zonis (1973:88-90), During (1984a:118-119), and Farhat (1990:51-55).

\(^6\) Whilst there is no concept of standard pitch in Persian music, and performances and published notations are thus centred around a variety of pitches, there has been a move towards standardisation in the course of this century, and it is now common practice for musicians to use one of two tuning systems - *râst kuk* and *chap kuk* (lit.:"right tuning" and "left tuning") - in performing a particular *dastgâh*. The central pitches of these two tuning systems are usually a fourth apart, and may vary from one instrument to another (for details of these, see Caron and Safvate 1966:185-189, Sâdeghi 1971:22-32, and Zonis 1973:66-96). The choice of whether to use *râst kuk* or *chap kuk* will often depend on the range of the vocalist (if there is one). In the case of *Segâh*, most versions today use either *e-koron* (approximate half-flat) or *a-koron* (or a pitch in the region of one of these two) as the *shâshed* of the *daramad*. In order to ease comparison amongst the many musical examples presented in this and the following chapters, all of the transcriptions of *Segâh* in this study have been notated with the *shâshed* (of the *daramad*) as *e-koron*. In each case, the actual pitch of the *shâshed* (of the *daramad*) is indicated in brackets at the beginning of the example.
<table>
<thead>
<tr>
<th>darâmad</th>
<th>hodi va pahlavi</th>
<th>pishzanguleh</th>
<th>darâmad now-e digar&lt;sup&gt;87&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>moqadameh</td>
<td>zanguleh</td>
<td>kereshmeh</td>
<td>(another version of the darâmad)</td>
</tr>
<tr>
<td>naqmeh</td>
<td>zang-e shotor</td>
<td>châhârmezâb</td>
<td>darâmad-e avval (first darâmad)</td>
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<td></td>
<td>reng-e delgoshâ</td>
<td></td>
<td>darâmad-e dovom (second darâmad)</td>
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<td></td>
<td></td>
<td></td>
<td>darâmad-e sevvom (third darâmad)</td>
</tr>
<tr>
<td>zâbol</td>
<td>zanguleh</td>
<td>qesmat-e dovom-e zâbol</td>
<td>(second section of zâbol)</td>
</tr>
<tr>
<td>muyeht</td>
<td>shekaste muyeht</td>
<td>kereshmeh bâ muyeht</td>
<td>qesmat-e dovom-e muyeht</td>
</tr>
<tr>
<td></td>
<td>panjeh muyeht</td>
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<td>(second section of muyeht)</td>
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<tr>
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<td>hâzïh</td>
<td>bastenegar</td>
<td>qesmat-e dovom-e mokhâlef</td>
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<td>haji hassani</td>
<td>dobeiti</td>
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<td>maarbad</td>
<td>masnavi</td>
<td>qesmat-e sevom-e mokhâlef</td>
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<td></td>
<td>pas hesâr</td>
<td>naqmeh-ye maqlub</td>
<td>(third section of mokhâlef)</td>
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<td>par-e parastu</td>
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<td>maqlub</td>
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<td>zanguleh</td>
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<td>rohâb</td>
<td>masih</td>
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<td>shâh khatâi</td>
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<td></td>
<td>takht-e tâqedis</td>
<td>(yâ takht-e kâvus)</td>
<td></td>
</tr>
</tbody>
</table>

Figure 3 - Gushehs of Segâh in Radifs 1-4<sup>88</sup>

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87 As mentioned in Chapter Two (Section 2.3.1.3), some radifs present more than one darâmad of Segâh (and also of other dastgâhs). In performance, however, whilst there may be a number of different sections to the darâmad, they are not numbered in this way. It is likely that the purpose of having more than one darâmad is to show "...options, of teaching improvisation, as it were, by showing that the same materials can be presented in different arrangements." (Nettl 1987:97, quoted in Chapter Two). The radif of Ma’rufi, in particular, is characterised by the detailed sectioning of gushehs, and most of the central gushehs in this radif are presented in a number of different sections, for example, "darâmad-e avval" ("first darâmad"), "qesmat-e dovom-e zâbol" ("second section of zâbol"), etc. (see Appendix Two), which in performance, would not be sectioned and labelled in this way.

88 In Figure 3, the principal gushehs/broad modal sections are listed in the left-hand column; the third column lists gushehs which are defined through their metric/rhythmic characteristics and which are not specific to Segâh; and the final column lists the second/third sections of the main gushehs. It should be noted that it is not always clear which gushehs should be included in such a listing. Not only are some short and relatively unimportant (and are found in most dastgâhs), but there is also some debate regarding which materials rightly belong to the radif. Thus, for example, as discussed in Chapter Two (Section 2.2.4), the radif of Ma’rufi (radif 4) was considered by some musicians to contain material "... not properly part of the radif. The method of naming sections that Ma’rufi followed gave it an extremely long table of contents,
the relationships between pitches. The modal scale of Segah is as follows:

As in other dastgahs, the mode of Segah is established in the darâmad - in effect, the mode of the darâmad is the mode of Segah. The pitch of overriding significance in this mode is e-koron, which acts both as shâhed, âqâz, ist, as well as finalis. Indeed, a distinguishing feature of Segah is the coincidence of these modal functions on one pitch, conferring it with great importance. The main tetrachord of the mode lies between e-koron and a-koron, although other pitches are also used.

The opening darâmad is usually followed by the gusheh zabol (named after a town in south-eastern Iran), which is characterised by a distinctive opening motif: an oscillation between e-koron and f, before reaching towards an emphasis of and resting on g - the shâhed of this gusheh. Whilst this opening motif may be heard in a number of different variations, it is possible to extract its "essence":

The pitches and the basic tetrachord of zabol are the same as those of the darâmad mode, but the centre of melodic interest has moved upwards so that g

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as materials sometimes designated as gushes might have been considered by other musicians to be subdivisions of gushes ... [moreover,] Ma'roufi's radif includes a number of metric pieces evidently never subject to improvisation and thus of questionable status in the radif; this applies particularly to several rengs and chahâr mezârâhs appearing near the endings of several dastgâhs. But it is easy to see how such materials could once have been part of the stock of materials passed on by master to student." (Nettl 1987:7; similar points are made by Farhat, 1990:29). Whilst most of the gushehs in radifs 1-4 are listed here, certain measured pieces/detailed subdivisions of gushehs have been omitted where appropriate. The full listing of gushehs for each individual radif is given in Appendix Two.

The concept of "scale" is extrinsic to the Persian system. Publications usually present scalar structures (though not necessarily with seven pitches) for each mode, with letters indicating pitch functions. Notwithstanding the problems of such a method, this convention has been followed here. The central focus of melodic interest in any one gusheh usually lies within the range of a tetrachord, although pitches outside the main tetrachord may also be used.
is now the *shāhed*. Thus, the modal configuration of *zābol* is as follows:

\[\text{IP .-.} \]

\[\text{Zābol is usually followed by *muyeh* (lit. "crying", "lamenting") and again, the pitches of the *darāmad* are maintained, but with modified functions, and with the main area of melodic activity now between g and b-flat:}\n
\[\text{F} \]

\[\text{Mokhālef (lit. "contrary"), which usually follows *muyeh*, is the most important *gusheh* after the *darāmad*. It is based around the sixth degree of the scale of *Segāh*, but with changed pitches, constituting the first significant modification of the pitches of the original mode:}\n
\[\text{F} \]

\[\text{Like *zābol*, *mokhālef* has a distinctive opening - a strong emphasis of c, usually followed by a movement down to g and up to c again:}\n
\[\text{F} \]

\[\text{The climax, or *owj*, of *Segāh* is the *gusheh maqālub* which uses the same pitches as *mokhālef*, but whilst the main tetrachord of *mokhālef* lies between g and c, *maqālub* rises to emphasise the area between c and e-flat, the latter being the}\n
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highest focal pitch reached in Segah.⁵⁰

![Diagram of pitch notation]

It should be noted that this flattening of pitches in the upper octave - in the case of Segah, the e-koron of the darámad, zábol, and muyeh becomes an e-flat in the higher ranges of mokhâlef and maqlub - is also found in other dastgâhs. Bearing in mind that much of this music was originally based on the voice, one possible explanation for this might be that vocalists have found e-flat less strenuous to perform in the upper register than the slightly sharper e-koron (in the case of Segah), and that this has resulted in a gradual flattening of the upper octave e-koron over many years. Indeed, this may be an example of a musical feature which has arisen from physical constraints on the voice, but which has gradually become embedded into the music, thus relating to the earlier discussion regarding the psycho-physiological determinants of musical structures.

After maqlub, the music descends (often through a number of shorter gushehs) to the darámad mode in an extended forud. Farhat has mentioned the particularly important role played by this final forud section in Segah, in returning the music to the modal area of the darámad after the (generally) extended section in the higher-pitched mokhâlef mode (1990:55).

Since there is no definitive version of Segah, the order of central gushehs presented above, whilst consistent with that usually found in the radifs of Segah, is subject to some variation in performance. Similarly, some of the pitch functions discussed are not always strictly adhered to, but may be varied in

⁵⁰ Whilst maqlub is usually notated with an e-flat (or equivalent, depending on the pitch used for the shahed of Segah), in the radifs of Karimi (radif 2; Massoudieh 1978:149) and Ma’rufi (radif 4; Barkeshli and Ma’rufi 1963), it is notated using e-koron (the latter has e-koron at the beginning of the gusheh, and this changes to e-flat halfway through maqlub). There are various indicators to suggest that these may be misprints. For example, in the cassette recordings which accompany radif 2, Karimi definitely sings an e-flat in the upper register, and in the notation of this radif, the return to e-koron towards the end of the gusheh (in the lower octave) is clearly marked in a manner which would be unnecessary had there been an e-koron earlier in the upper octave. Moreover, all of the renditions of maqlub in the analysed performances used e-flat in the upper octave rather than e-koron.
practice, with performers occasionally using an alternative (usually adjacent) pitch, particularly in the case of the āqāz and īst. The finalis, however, rarely changes, this being a pitch which plays an important role in maintaining the identity of the mode. Similarly, the shāhed is not variable, since its relationship to the other pitches is the most important factor (together with the cadential motifs) in defining a gusheh or dastgāh, and any variation in this pitch would cast doubt on the identity of the particular section of music. It should be stressed that any variation in the order of gushehs or the modal functions of pitches always takes place around certain (generally unspoken) "norms", as will be seen in the analyses of the present and following chapters.

The complexities of the term "mode" and its various meanings, particularly across the Middle East, are discussed by Powers (1980c, 1989, see Section 2.2.2). In the context of the present study, "mode" is taken to mean a set of pitches which exist in a hierarchical relationship to one another (Powers' "tonal category"). In one sense, gusheh is the fundamental modal unit of Persian music, each dastgāh being a series of gushehs in different (but related) modes, connected by the opening (darāmad) mode of the dastgāh, the latter also being heard in the short foruds between some of the gushehs and in extended form at the end of the dastgāh. However, whilst "mode" and "gusheh" are sometimes presented in the literature as being essentially synonymous, there is a subtle, but important difference between the two, since two gushehs may share the same "mode" (in the sense of a "tonal category") whilst maintaining their individual identity as separate gushehs by means of specific melodies and rhythms. This is particularly common in the case of shorter gushehs which may be distinguishable as individual gushehs, whilst being based in the mode of one of the main gushehs of a dastgāh.

In Segāh, for example, the gushehs naqmeh-ye maqlub, masnavi, and hazeen are based in the mode of mokhālef, but are characterised by individual melodies and, in the case of the first two, rhythms, and can thus be identified as individual gushehs: they are in the mode of mokhālef, but are separate entities from the

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91 Farhat describes both masnavi and hazeen as "vagrant gushehs" or tekkes, these being relatively short and less important gushehs which can be found in any dastgāh, and which maintain their melodic shape, whilst being assimilated to the mode in which they are being played. Farhat gives examples of masnavi in Shur, Bayār-e Esfahān, and Afshāri, and examples of hazeen in Navā, Shur, and Chāhārgāh (1990:111-12, 184-6, 188-90). Figure 9 lists the occurrence of masnavi and hazeen in all twelve dastgāhs in radifs 2 and 4.
"gusheh mokhâlef." Thus, "mokhâlef" may refer both to a specific gusheh with its own melodic and modal characteristics, and also to a general modal area within which other gushehs may be heard. Similarly, hodi va pahlavi and rajaz are in the mode of the darâmãd, but are independent gushehs with their own distinct melodic and rhythmic characteristics. It is generally the more prominent gushehs such as the darâmãd and mokhâlef which include other gushehs within their modal areas, but there are exceptions to this. For example, bastenegâr is a short gusheh which is largely defined by its distinctive rhythm, and which can be heard in the mode of any dastgâh or (theoretically, at least) gusheh. In Segâh, it is generally heard in the mode of zâbol, and occasionally in that of mokhâlef. Similarly, the gusheh shekasteh muyeh, which sometimes appears briefly towards the end of Segâh, as a bridge between the modal areas of mokhâlef and darâmãd (but which may also be heard before mokhâlef), is in the mode of muyeh. Hesãr and hozân were the only shorter gushehs in the versions of Segâh under study which were not based in the mode of one of the main gushehs, and thus in the case of these two gushehs, "mode" and "gusheh" imply the same thing.

Material in the mode of Segâh (darâmãd) is usually heard at the beginning and end of performances: at the beginning in order to establish the identity of the dastgâh, and at the end in order to bring the performance to a satisfactory conclusion. The distinction between "mode" and "gusheh" is important here. The opening section is known as darâmãd, whilst the section at the end is called forud. The forud shares the mode of the darâmãd and some of its other characteristics, but maintains its own identity as a section of the music. Short forud sections in the darâmãd mode are also heard at the ends of individual gushehs in the course of the dastgâh, but these are generally perceived as belonging to the gusheh which they conclude.

Whilst the distinction between gusheh and mode is rarely explicitly discussed in the literature, it is often implied in the terminology used. Of those writers who do discuss this matter (albeit briefly), Farhat suggests that in Farsi, the term maqâm (lit. "position"; of Arabic origin) is equivalent to the English "mode" (1990:23), and certainly prior to the development of the dastgâh system, this term was in common usage in Iran, signifying a mode or melody-type on the basis of which musicians improvised (as it still does in other Middle Eastern musical
traditions). Indeed, until relatively recently, some older musicians were still using the term "maqām" to refer to individual dastgāhs (for example, see Khāleqi 1983a). Another term which, according to Farhat, is now commonly used to indicate "mode" is the Persian word "mâyeh" (lit. "source", "basic material"), and this term is also mentioned by During (1991b:60-63). Moreover, Farhat states that the English word "mode" is also used by some musicians (1990:23). The author’s main informant, Firooz Berenjiân, expressed the distinction between mode and gusheh indirectly (in the course of discussing with the author some of the performances analysed in this study) through phrases such as a particular gusheh being "dar favâSEL-ha-ye mokhâlef" (lit. "in the intervals of mokhâlef") or "dar note-ha-ye mokhâlef" ("in the notes/pitches of mokhâlef"). Similarly, in the commentary which follows Alizadeh's recording of the radif of Mirza Abdollah as taught by Borumand (1992), he describes certain gushehs as being, "dar mahdoodeh-ye darâmad" (lit. "in the limits/region of the darâmad"). Thus, whilst this is not an area of the musical system which is widely discussed by teachers, there does exist some vocabulary with which musicians can express the way in which one gusheh may be heard within the modal area of another (usually more prominent) gusheh.

In discussing the music, then, it is possible to consider Segâh both in terms of its individual gushehs, and also in terms of a series of broad modal sections which are generally centred around the main gushehs of the dastgâh, beginning with the darâmad and progressing through zâbol, mayeh, and mokhâlef (and possibly maqlub), and back to the darâmad mode as described earlier. The analyses of this chapter will examine the overall modal structure of a number of radifs and performances of Segâh in Section 4.4.1, and this will be followed by a more detailed consideration of the internal structure of one particular modal section - mokhâlef - in Section 4.4.3.

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92 Khâleqi also uses the word mâyeh (1982:63-74), although his definition of, and distinction between, the terms gām, mâyeh, and maqām is rather unclear. This is partly a result of the way in which Khâleqi tries to explain Persian modal theory in terms essentially derived from western music, and which is in itself indicative of the period when this book was originally written (1938).
4.3.1 The Analysed Versions of Segah

An important part of the present study is an attempt to define dastgah Segah, through examining a variety of its manifestations, and by exploring the processes by which the dastgah is re-created by musicians at each performance. The following analyses are based primarily on four radifs and twenty-six performances of Segah, although a number of other versions of Segah are also referred to occasionally (details of all of the analysed versions of Segah are given in Appendix One). The analysed performances of Segah represent a range of musicians in terms of age and education, playing in different contexts, and spanning a period of about thirty years. Some are live recordings of concerts, whilst others are commercial recordings (released either in Iran or in the West), or recordings of Iranian radio broadcasts. All of the main musical instruments of the classical tradition are represented in these performances, and the sample includes a number of performances by the same musician on different occasions, and by teachers and pupils or fellow pupils, all of which are useful for purposes of comparison.

The generally available radifs were discussed in Chapter Two (Section 2.2.4). The radifs of Segah used most extensively in this study were essentially those available as sound recordings: the radif of Mirzâ Abdollâh as transmitted by Nur Ali Borumand (radif 1, played on the târ); the radif of Abdollâh Davâmî as recorded and also taught by Mahmud Karimi (radif 2 - vocal radif, published as Massoudieh 1978); the radif published by the Institute for the Intellectual Development of Children and Young Adults (radif 3 - various musicians and instruments); and the radif of Mussâ Ma’rufî (radif 4) in an unpublished recording, the background to which is rather obscure. Played on the târ by Soleymân Ruhafrzâ in apparently informal surroundings, the recording is introduced by Ma’rufî himself, and is clearly intended to preserve his radif for future generations. The rendition is based directly on the publication of Ma’rufî’s radif by the Iranian government and

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93 One of the difficulties in a study of this nature is deciding whether one’s sample of performances is "representative" of the tradition, and indeed whether such a thing is possible or even desirable (notwithstanding the question of what is meant by "representative" and the criteria used to make such a judgement). In this study, an attempt has been made, within the available resources, to present a wide range of performances in terms of performance situation, instrument/voice, age of performer, etc. However, it is not totally clear what "representative" really means in this context, and whether a larger sample of performances necessarily presents a more "balanced" perspective (see Footnote 128, Chapter Five).
discussed in Chapter Two (Barkeshli and Ma’rufi 1963). The \textit{radif} of Abol Hassan Sabä in two different versions (c.1967, Volumes One and Two - \textit{radifs 5 and 6}), although only available in notated form and thus not as useful to this study as the recorded \textit{radifs}, is also referred to as appropriate. Two further recordings of the \textit{radif} were available (and were mentioned in Chapter Two), but were not used directly in the present analyses: the first was recorded by the highly regarded \textit{santurist} Majid Kiäni (1987) and the second by the \textit{târ} player Hossein Alizädeh (1992). Both Kiäni and Alizädeh studied with Borumand, and these recordings are almost identical to the \textit{radif} transmitted by their master, but are finer renditions. Finally, Farhat (1990:51-55) lists and describes the \textit{gushehs} of \textit{Segâh}, providing a valuable supplement to the various \textit{radifs} under study.

The relationship between \textit{radif} and performance lies at the heart of this study, the assessment of any performance clearly depending upon its relationship to the \textit{radif(s)} on which it is based. As discussed in Chapter Two, there are inherent difficulties in identifying the specific model(s) underlying a particular performance, partly because musicians typically learn more than one \textit{radif}, and also because of the elusive nature of orally-transmitted \textit{radifs}. Whilst it is difficult to ascertain how representative published \textit{radifs} are, and the ways in which they might differ from the orally transmitted versions of individual masters (it is possible that the very nature of publication effects changes, whether in the inclusion and arrangement of \textit{gushehs} or in the actual musical material), it is interesting that musicians interviewed by the author regularly made reference to published \textit{radifs} (both in the form of notations and as sound recordings) to illustrate their arguments. In addition, the literature presents published \textit{radifs} as representative of, if not identical to, the oral tradition of teaching. Given that published \textit{radifs} are now widely used by teachers in the class situation, this study

\footnote{This recording was deposited at the University of Tehran, and the recording of \textit{dastgâh Segâh} was made available to the author courtesy of Professor Bruno Nettl. Whilst the date of this recording is unknown, according to Tsuge (1974:98), Ruhaefzã recorded Ma’rufi’s \textit{radif} under Ma’rufi’s own supervision between 1959-60 (and Tsuge transcribes part of this \textit{radif} in his study). It is likely that this is the same recording which was deposited at the University.}

\footnote{Whilst \textit{radifs} 1, 2, and 4 are also available in printed form, in the case of the first two the author chose to make her own transcriptions of the music for specific purposes of the present analyses, whilst also referring to the printed notations for points of comparison. In the case of \textit{radif} 4, the progression and relative lengths of sections discussed in the present chapter are based on analysis of the sound recording (with reference to the published notation), whilst the motivic analyses of Chapter Seven are based solely on the published notation for reasons outlined in that chapter.}

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has taken the published *radifs* to be representative of the basic repertoire as taught by teachers and as used by musicians as a basis for creativity.

### 4.4 The Structural Organisation of Segah

Each time that a *dastgāh* is performed, certain decisions have to be made by musicians regarding which *gushehs* of the *dastgāh* to present (selected from the repertoire of the *radif*) as well as their order and length. Such decisions may be made prior to the performance (particularly in the case of group performances) or during the performance itself. The starting point for this study is an exploration of the ways in which musicians in twenty-six performances of *Segāh* shaped the large-scale structural organisation of the *dastgāh* in terms of the *gushehs* which they have chosen to play, their order, and the length of time spent on each, and how this relates to the organisation of the *radifs* of *Segāh* under study. In addition to the analytical commentary which follows, information regarding the overall progression of modal sections and *gushehs* in *Segāh*, and also the internal sectioning of the main modal sections, is displayed in a series of flowcharts (Figures 4-8). These charts show the various "paths" by which musicians progress through the *dastgāh* in the versions of *Segāh* analysed, at the same time suggesting the paths that musicians do not use, and thereby possibly pointing towards a "grammar" of sectional organisation in *Segāh*. Thus, by identifying general patterns of organisation and their variation, the analysis seeks to understand both the relationship between the organisation of *radifs* and performances, and also the internalised rules by which performances are generated by musicians.

The basic data for this analysis is presented in Appendices Two and Three. Twenty-six performances and four *radifs* of *Segāh* were analysed by the author in a number of different ways: according to the overall modal structure of the rendition; according to the individual *gushehs* played and their order and length; and finally the metric character, lengths, and *forud* notes of the subdivisions of each *gusheh*. Whilst the transition from one *gusheh* to the next is not made explicit in performances by means of an announcement, as it is in the recorded *radifs* (in line with the pedagogical and preservative function of the latter), in
performances 18, 25, and 26, each *gusheh* was identified before and/or during the rendition, since these were recordings of performances intended to illustrate the tradition before a western audience. The *gushehs* of performance 2 were listed in the accompanying concert programme, and for performances 9 and 17 the *gushehs* played were listed on the cassette and record covers respectively. However, these listings were fairly general and none provided information on the internal sectioning of *gushehs* (and there may also be discrepancies between the listing of *gushehs* in the programme notes of a concert and the *gushehs* actually performed, see Footnote 137, Chapter Five). For the majority of the performances, therefore, the identification of constituent *gushehs* and their subdivisions for the purposes of analysis was carried out by the author with the invaluable and tireless help of her principal informant, Firooz Berenjiañ, who also commented on a large number of the recordings used in this analysis.

Nettl is the only author who has pointed out the difficulties of analysing performances for their constituent *gushehs* (with Foltin 1972:17-18, perhaps because he is also one of the few writers to have analysed this music in detail). Elsewhere, he tentatively suggests that there are essentially two kinds of *dastgāh*: the first, which according to this typology would include *Segah*, can be relatively easily divided into its constituent *gushehs*, whilst the second, including for example *dastgāh Shur*, is less easily analysed in this way (1987:105). The situation is made more complex by the technique known as *eshareh* (lit. "hint" or "allusion") in which one *gusheh* may be briefly alluded to in the context of another. For example, in the course of the *gusheh zabol*, there might be a brief allusion to *muyeh*. This is known as *eshareh be muyeh* (lit. "allusion to muyeh"), and in the following analysis, in line with native categorisation, such an *eshareh* would be regarded as being part of *zabol* unless the "hint" of *muyeh* is of significant length (or prominence) to warrant a separate listing and timing. By alluding to one *gusheh* within the context of another, musicians create an interesting transitory ambiguity in the identity of *gushehs*.

Furthermore, whilst important aspects of the *radif* are represented in improvised performances, its role varies widely from one musician to another, thus adding a further complexity to the process of *gusheh* identification. Performances range across a spectrum from those which remain close to the *radif*, presenting clear-cut
sections based on each main gusheh, to those which employ materials from the radif freely, effectively using it as a broad starting point for musical inspiration. Identifying and timing individual gushehs within a performance is therefore a fairly complex process.

4.4.1 Modal Organisation

The first part of the analysis will explore the modal organisation of Segāh, using the information presented in Appendix Two and focusing on the ways in which musicians construct performances in terms of broad modal areas. At this point in the discussion, therefore, shorter gushehs which appear within the modal ambit of longer gushehs are not listed individually (and neither is there any discussion of the musical material itself, which will be considered in Chapters Five to Seven). Analysis of the data gathered in Appendix Two indicated that the performances of Segāh under study were generally constructed around a basic core comprising the following modal sections (each section centred on one of the main gushehs of the dastgāh): daramad (D), zābol(Z), muyeh(Mu), and mokhālef (Mo), and returning to the mode of the daramad for the final forud.66 In practice, however, this central core was subject to continual variation. Indeed, only one of the analysed performances presented the core in an unvaried form:97

<table>
<thead>
<tr>
<th>Darāmad</th>
<th>Zābol</th>
<th>Muyeh</th>
<th>Mokhālef</th>
<th>Darāmad (22)</th>
</tr>
</thead>
</table>

66 The final forud section which almost invariably ends performances (and most radifs) of Segāh is in the same mode as the initial daramad section. Within the musical tradition, however, the forud would never be called "daramad", which literally means "opening", but simply "forud". As mentioned above, this is an example of the important distinction between mode and gusheh: the daramad and the forud are in the same mode, but they are identified as separate sections (both because of their distinctive melodic material and also because of the difference in positioning). For the purposes of this section of the analysis, "daramad" at the ends of renditions indicates the return to the daramad mode and not the gusheh daramad. Similarly, there are a number of examples of material found at the daramad mode towards the end of the segment, also identified as "D".

97 The reader is referred to Appendix Two for a complete listing of the data on which the following discussion is based.

68 As has become common practice (see discussion in Chapter Three), a number of the analysed renditions included pre-composed, measured, (generally) ensemble pieces such as pishdarāmad (usually at the beginning of renditions, although performances 6 and 8 each included a piece in a pishdarāmad style as the fourth and second section of the performance respectively), and tasmif and rengs (usually at the end, but again there were exceptions: performance 7 included a tasmif towards the beginning, which was repeated at the end of the performance, and performance 9 included a piece in a reng style in the middle of the performance). Whilst usually based in the daramad mode, these pieces often explore the various modal areas of the dastgāh about to be (or just) performed, often presenting a condensed version of the modal
This basic core was varied in a number of ways. For example, several musicians returned to (or prestated) one or more of the main modes in the course of the performance:

\[
\begin{align*}
\text{D} & \quad \text{Z} & \quad \text{D} & \quad \text{Z} & \quad \text{Mu} & \quad \text{Mo} & \quad \text{D} & \quad (2) \\
\text{D} & \quad \text{Z} & \quad \text{Mu} & \quad \text{Mo} & \quad \text{D} & \quad \text{Mo} & \quad \text{D} & \quad (26) \\
\text{D} & \quad \text{Z} & \quad \text{Mu} & \quad \text{D} & \quad \text{Mu} & \quad \text{Mo} & \quad \text{D} & \quad (4)
\end{align*}
\]

Whilst the most common position for \textit{muyeh} was between \textit{zâbol} and \textit{mokhâlef}, it was also regularly heard later in the \textit{dastgâh} acting as a "bridge" in the descent between \textit{mokhâlef} and the \textit{daramad} mode at the end. In some performances, \textit{muyeh} was substituted in this position by \textit{shekasteh muyeh} (SMu) - a short gusheh in the mode of \textit{muyeh} but with its own distinctive melody:

\[
\begin{align*}
\text{D} & \quad \text{Z} & \quad \text{Mu} & \quad \text{Mo} & \quad \text{SMu} & \quad \text{D} & \quad (17) \\
\text{D} & \quad \text{Z} & \quad \text{Mu} & \quad \text{D} & \quad \text{Mo} & \quad \text{SMu} & \quad \text{D} & \quad (7)
\end{align*}
\]

In other performances, \textit{muyeh} was omitted completely from its more usual position between \textit{zâbol} and \textit{mokhâlef}, but was heard in the later position after \textit{mokhâlef}, sometimes in the form of \textit{shekasteh muyeh}:

\[
\begin{align*}
\text{D} & \quad \text{Z} & \quad \text{Mo} & \quad \text{SMu} & \quad \text{D} & \quad (10) & \quad (25)
\end{align*}
\]

progression of the whole \textit{dastgâh}. These brief excursions to different modal areas are indicated as appropriate in Appendix Two. However, for the analyses of this section, these measured pieces have mostly been included in the modal area of the \textit{daramad}, since they are generally grounded in this mode. Occasionally, however, such pieces are clearly based in another modal area, in which case they have been included in the relevant modal section.

The analysed versions of \textit{Segâh} also included a number of examples of other measured genres (usually solo instrumental, and either improvised or pre-composed), particularly the \textit{chahâmezbâ} and the less stylistically specific \textit{zarbi}, and these were found in a variety of modes, but they tended to remain in one modal area rather than explore other modes (although there were some exceptions to this). As with the measured pieces mentioned above, these are included in the modal sections in which they are based.

Numbers in brackets refer to performances as listed in Appendix One.

\footnote{In performance 2, for example, two brief sections in the modes of \textit{daramad} and \textit{zâbol} were heard before the main statements of these modes. These are referred to by the author as "prestatements". Such "prestatements" were not a common occurrence in the performances analysed, but in such cases, the main statement was identified with the help of Berenjian, whose criteria appeared to depend largely on the length and position of the gusheh.}
The basic modal core outlined above was also varied with the addition of less central gushehs such as maqlub (Maq), hesār (Hes), and hozān (Hoz), usually after mokhālef:

\[
\begin{array}{cccccccc}
D & Z & Mu & Mo & Maq & Hes & D & (11) \\
\end{array}
\]

The most common way in which the basic core of modes was varied was a mixture of the restatement (or prestatement) of modal sections and the inclusion of extra gushehs:

\[
\begin{array}{cccccccc}
D & Z & Mu & Mo & Hes & Mo & Hes & D & (29) \\
D & Z & Mu & Mo & Hes & Mo & D & Z & Hes & D & (8) \\
D & Z & D & D & Mu & Mo & Maq & Mo & D & Mo & D & (15) \\
D & Z & Mu & Mo & Maq & Mo & D & (18) \\
D & Z & Mu & Mo & Hes & D & SMu & D & (20) \\
D & Z & Mu & Mo & Maq & Mo & Mu & Hes & D & Hes & D & (27) \\
D & Z & Mu & Mo & SMu & D & Maq & Mo & Mu & D & (3) \\
\end{array}
\]

Maq Mo Hes D Maq Mo SMu D Mo SMu D Maq Mo Mu D (1)

The following performances varied the basic core by both restating central modes, adding extra gushehs, and also omitting muyeh from its usual position and playing it (and/or shekasteh muyeh) only in the descent from mokhālef:

\[
\begin{array}{cccccccc}
D & Z & Mo & Maq & Mo & Mu & D & (16) \\
D & Z & Hoz & Hes & Hoz & D & Mo & Mu & D & (23) \\
\end{array}
\]

188
In a number of the above performances, hesār (and in performance 8, zābol) was used as an alternative to muyeh (and shekasteh muyeh) in its function as a bridge between the high point of mokhālef and the concluding forud in the darāmad mode.

A less usual form of variation was the reversal of the order of central modes, as in the following example (which also included both restatement and extra gushehs):

\[
\text{D} \quad \text{Mu} \quad \text{Z} \quad \text{Mo} \quad \text{Hes} \quad \text{D} \quad \text{SMu} \quad \text{D} (13)
\]

Not only did performance 12 reverse the positions of darāmad and zābol, but it was also the only performance not to begin and end in the darāmad mode:

\[
\text{Z} \quad \text{D} \quad \text{Z} \quad \text{Mu} \quad \text{Mo} \quad \text{(12)}
\]

Whilst the performer in this rendition (Hossein Malek) did have a tendency to emphasise zābol, the order of modes was still surprising, since it represented a direct contrast with the organisation of performance 22 played by the same musician, in which the modal core was played in its most basic order (see above).

Another form of variation heard occasionally was the omission of central modal sections. In the sample of performances studied, all twenty-six included darāmad and mokhālef, but zābol and muyeh were omitted from one performance each:

---

101 Taken from a Bärenreiter Musicaphon commercial disc (published early 1960s), this was a rather unusual recording. The music fades out during mokhālef, and seems to be cut before the end of the performance, perhaps because of time limits or even misunderstanding of the musical structures by those responsible for the editing of this disc. The recordings were made by Alain Daniélou, and were edited under his direction by the International Music Council.
If one examines the modal organisation of the radifs available as sound recordings, it is immediately apparent where the basic progression of core modes heard in performances is derived from:

<table>
<thead>
<tr>
<th>D</th>
<th>Mu</th>
<th>Mo</th>
<th>SMu</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(14)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D</th>
<th>Z</th>
<th>Mo</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>(24)</td>
</tr>
</tbody>
</table>

Thus, the radifs of Segāh were constructed around five central modal sections, the order of which remained constant. Given that it is through the radif that musicians learn the basic repertoire, it is perhaps not surprising that the main modal sections which appeared consistently and in the same position in the radifs were the same as those which emerged in the analysis of performances above.

102 The unusual group of gushehs in the mode of Shur towards the end of radif 1 will be discussed in Section 4.6 below.

103 Hozān is not mentioned by Farhat, and in the radifs under study was only found in radifs 3 and 4. According to Sepantā (1959:9), hozān is an old gusheh which is rarely heard today. However, it should be noted that part of the phrase which comprises this short gusheh was heard in radif 1, and also in a number of performances, towards the end of hazeen, where it seemed to function as a forud pattern. Moreover, the same pattern was also found in a similar position in a number of other gushehs (both in radifs and performances, and at various pitch levels), and this will be discussed further in Chapter Five, Sections 5.2.3, and Chapter Six, Section 6.4.

104 As mentioned in Chapter Two (Section 2.2.4), the order of gushehs in radif 3 is rather unusual (see Appendix Two), gushehs being introduced individually and then combined in small groups in order to demonstrate sections of the radif. This radif was not intended for the direct teaching context, but as a general educational tool, and demonstrates how the dastgāh is constructed in small sections. The modal organisation presented here for this radif is thus an abstraction from the general progression by which individual gushehs are presented.
(with the exception of maqlub). However, there were also some interesting differences in the modal organisation of performances and radifs, and these will be considered in Section 4.6 below.

4.4.2 General Observations

Despite the necessarily limited nature of a sample of this size, a number of interesting patterns emerged from the above analysis. The performances and radifs under study shared much in terms of modal organisation. In the performances, a core progression of four main modal sections, centred around the main gushehs of Segāh (and the return to the darāmad mode at the end), was varied using repetition and omission of modal sections as well as the addition of gushehs outside the central modal core. Whilst only two performances were identical in their overall modal organisation (performances 10 and 25), the close correlation between the twenty-six performances was very interesting, particularly given the relative freedom available to musicians in performance. All of the performances included the four central modal sections (except for the omission of zabol and muyeh in one performance each), all began and ended in the darāmad mode (except for performance 12), and with three exceptions, zabol was always the second main modal section. Muyeh was the only central mode whose position was regularly varied, but it was usually heard either directly before mokhālef or in the descent following mokhālef. Furthermore, in a large number of performances (but less apparent in the radifs) the progression of modes in the first part of Segāh - between the darāmad and mokhālef - appeared to be less complex than that following mokhālef, with the less central gushehs usually being heard after mokhālef. Figure 4 is a diagrammatic representation of the modal progression of Segāh in the analysed performances and radifs as extracted from the above discussion.

In addition to the basic core of the four central modal sections in the performances, further patterns emerged. For example, performance 3 contained the following progression of modes, with mokhālef "sandwiched" between two sections in the mode of muyeh:
Figure 4 - Flowchart Showing the Progression of Overall Modal Sections in the Analysed Performances and Radifs of Segāh

Key: [ May begin renditions
       ] May end renditions

Final
* 16th section in the dawāmad
   mode.
This pattern was subject to variation in different versions. For example, in radif 1, the same pattern was heard, but mokhâlef itself enclosed the gusheh maqāb, as follows:

... muyeh mokhâlef shekasteh muyeh ...

In performances 8, 20, and 29, the pattern in performance 3 was varied with hesâr taking on the role of muyeh in the descent from mokhâlef:

... muyeh mokhâlef hesâr ... 

Performance 27 combined the above two variations:

... muyeh mokhâlef maqāb mokhâlef muyeh hesâr ...

Thus, it seems that whilst the overall modal organisation revolves around a basic core of four gushehs (five in the radifs), individual segments of the core may also be subject to variation.

Whilst details of the arrangement of gushehs and broad modal sections are not generally discussed in the teaching context (as with other details of the music, see Chapter Two), this is an aspect of the music for which terminology does exist, and which musicians are fully aware of and able to discuss (as evidenced by the literature, and also by the author's own experiences in interviewing musicians).

The fact that the structural organisation of radifs represents a range of variation around an analytically deducible core suggests that in the process of learning a number of different versions of the radif, the student reaches an understanding of the ordering of sections in a particular dastgâh, as well as the variational potential of that ordering. After many years of training, he is able to use this knowledge (as well as information gained from listening to other performing musicians), in structuring his own performances. Indeed, as suggested in Chapter Two (Section 2.3.1.3), since the radif itself contains all the information which a student needs to know in order to "recreate" the tradition (the music effectively
containing the structures and rules for its own renewal), there is perhaps no need for the teacher to discuss such aspects of the music. Points from the above analysis will be discussed further in Section 4.5.

4.4.3 The Internal Organisation of Mokhâlef

The performances and radifs of Segâh under study were also analysed in terms of the internal organisation of the central gushehs, and some of the information from this analysis is presented in the flowcharts of Figures 5-8. Limits of space, however, preclude detailed discussion of all four central gushehs, and the present section will consider the internal organisation of mokhâlef, the most complex modal area in Segâh.

Performances
Mokhâlef in the form of a single unmeasured section was heard in performances 7, 13, 14, and 17. An alternating pattern of unmeasured and measured sections was heard in its most basic form in performance 26:

Mo(u)   Mo(k)   Mo(u)   [D]   Mo(z) (26)[4-8]^105

This pattern of alternating unmeasured and measured sections was also heard as an important structuring principle in the other central gushehs. Within mokhâlef, only performance 26 presented this pattern without the addition of shorter gushehs in the mokhâlef mode: in the remaining twenty-one performances of Segâh, mokhâlef formed a complex modal section involving both the alternation of measured and unmeasured material and the inclusion of shorter gushehs in the mokhâlef mode such as masnavi and naqneh-ye maqlub (in the mokhâlef mode, despite its name which suggests that this gusheh is in the mode of maqlub):

---

^105 key: Mas=masnavi; NM=naqneh-ye maqlub; Haz=hazeen; HP=hodi va pakhavi; (u)=unmeasured; (m)=measured; (k)=kereshmesh; (r)=reng; (cm)=chaizarmezrab; (z)=zarbi (the latter four all being measured pieces). The numbers in square brackets indicate the section numbers as listed for each rendition in Appendix Two.
All of the above performances included either naqme-ye maqulub or masnavi sandwiched between (usually) unmeasured sections of mokhâlef. Since naqme-ye maqulub is itself a measured section (albeit brief), a pattern of alternating metres comparable with that of performance 26 was heard in performance 25 by the same musician. Similarly, naqme-ye maqulub alternated with unmeasured sections of mokhâlef in performances 4, 20, and 29.

Maqulub is generally a short gusheh which, although representing a slight departure modally from mokhâlef, usually occurs within the general context of mokhâlef, preceded and followed by it (or by a shorter gusheh in the mode of mokhâlef). Maqulub is highly dependent on mokhâlef, emanating from it and returning directly to it, and is indeed sometimes referred to as mokhâlef be maqulub (lit. "mokhâlef to maqulub"). Starting from the tonal area of mokhâlef, the music moves briefly up to a higher register around the upper e-flat and then down to mokhâlef again. This was heard in performance 27,


and was varied in performance 11 by returning not to mokhâlef, but to a forud by way of hesâr:

Mo(u) Mo(k) Mo(u) Maq Hes (11)[8-12]
The internal organisation of mokhālef was more complex in performances which combined changes in metric character with extra gushehs in the mode of mokhālef, as well as gushehs such as maqīlub, hesār, and hodi va pahlavi not in the mokhālef mode. In a number of performances, masnavi was the first gusheh to follow the gusheh mokhālef itself, with naqmeh-ye maqīlub soon after:

\[
\text{Mo(u) Mo(cm) Mas Mo(u) NM(m) Mo(u) Mo(z) Mo(u) Hes (6)[10-18]}
\]

\[
\text{Mo(u) Mas NM(m) Mo(u) Haz [Mu] Mo(cm) Hes (5)[11-18]}
\]

\[
\text{Mo(z) Mo(u) Mas Mo(u) NM(m) Haz Maq(k) Maq(u) Hes (9)[8-16]}
\]

\[
\text{Mo(u) Mas z Mo Mo(cm) NM Mo(cm) Mo(u) z (2)[14-17]}
\]

\[
\text{Mo(u) Mas Mo(u) Haz NM(u) (22)[5-13]}
\]

In performance 22, the positions of naqmeh-ye maqīlub and hazeen\(^{106}\) as heard in performances 5 and 9 were reversed, and in performances 5, 6, and 9, the descent from mokhālef was effected through hesār, although performances 6 and 9 also included muyeḥ and/or shekasteh muyeḥ in the descent following hesār.

In a number of other performances, naqmeh-ye maqīlub was the first gusheh after the gusheh mokhālef. Performance 24 essentially reversed the positions of naqmeh-ye maqīlub and masnavi seen above, starting with a simple unmeasured section of mokhālef after which naqmeh-ye maqīlub was followed by an alternation of unmeasured and measured mokhālef material:

\[
\text{Mo(u) NM(m) Mo(u) Mo(z) Mo(u) Mas Mo(u) (24)[20-26]}
\]

\(^{106}\) As stated earlier, hazeen (in Segāh) shares the mode of mokhālef. However, it should be noted that this gusheh is usually heard towards the end of the mokhālef modal section, where it forms part of the descent (forud) to the darāmad mode. In some radīfs, this transition from the mode of mokhālef to that of darāmad occurs within hazeen (for example, radīf 1), whilst in others it occurs in gushehs which follow hazeen (for example, hazān and/or muyeḥ; see radīf 4), in which case hazeen ends in the mokhālef mode. For further discussion of hazeen, see Section 5.2.4, Chapter Five.
In performance 18, the unmeasured-measured-unmeasured pattern preceded *naqmeh-ye maqlub*, which was heard twice:

\[
\text{Mo(u)} \quad \text{Mo(cm)} \quad \text{Mo(u)} \quad \text{Mo(k)} \quad \text{NM(m)} \quad \text{Mo(u)} \quad \text{Maq} \quad \text{NM(m)} \quad \text{Mas} \\
(18)[14-22]
\]

The organisation was more complex in performance 3, which included the *gusheh hazeen*:

\[
\text{Mo(u)} \quad \text{Mo(k)} \quad \text{Mo(u)} \quad \text{NM(m)} \quad \text{Mo(u)} \quad [\text{SMu}] \quad [D] \quad \text{Maq} \quad \text{Mo(u)} \quad \text{Haz} \quad \text{Mas} \\
(3)[12-23]
\]

The unusual ending of performance 12 in the mode of *mokhālef* was noted earlier. The whole *mokhālef* section in this performance was essentially an alternation of measured and unmeasured material:

\[
\text{Mo(u)} \quad \text{Mo(cm)} \quad \text{Mo(u)} \quad \text{NM(m)} \quad \text{Mo(u)} \quad \text{Haz} \quad \text{Mo(u)} \quad \text{Mo(cm)} \quad \text{Mo(u)} \\
(12)[9-17]
\]

The following performances used various combinations of *masnawi, hazeen, maqlub*, and *hesār* in the structural organisation of *mokhālef*:

\[
\text{Mo(u)} \quad [\text{Mu,SMu,D,Mu,D}] \quad \text{Maq} \quad \text{Mo(u)} \quad \text{Mo(cm)} \quad \text{Mo(u)} \quad \text{Maq} \\
\text{Mo(u)} \quad \text{Mas} \quad \text{Mo(u)} \quad \text{Hes} \quad [\text{HP}] \quad \text{Maq} \quad \text{Mo(u)} \quad [\text{SMu,D}] \quad \text{Mo(u)} \\
(1[G])[9-29]
\]

\[
\text{Mo(u)} \quad \text{Mo(cm)} \quad \text{Mo(u)} \quad \text{Haz} \quad \text{Maq} \quad \text{Mas} \quad [D] \quad \text{Haz} \quad [\text{HP}] \\
(15)[8-16]
\]

\[
\text{Mo(u)} \quad \text{Mo(cm)} \quad \text{Mo(u)} \quad \text{Maq} \quad \text{Mo(z)} \quad \text{Haz} \\
(16)[7-12]
\]

\[
\text{Mo(u)} \quad \text{Mo(z)} \quad \text{Hes} \quad \text{Haz} \quad [D] \quad [Z] \quad \text{Hes} \\
(8)[6-12]
\]

The internal organisation of *mokhālef* was more complex than that of any other modal section in the versions of *Segāh* analysed, ranging from the simple alternation of measured and unmeasured material in the gusheh *mokhālef* to the inclusion of other gushehs both in the *mokhālef* mode and in other modes. However, there appeared to be certain rules governing the structuring of this
modal section, which invariably began with the *gusheh mokhâlef*, often heard in a pattern of alternating metres and interspersed with other *gushehs* such as *naqmehe-ye maqlub*, *masnavi*, *hazeen*, and also *maqlub*, and ending either with a section in the *mokhâlef* mode, or with *hazeen* or *hesâr*, both being possible routes leading down to the *forud* area.

**Radifs**

The complexity of *mokhâlef*’s internal organisation seen in the analysed performances was also found in the *radifs*. *Radif* 2 was the least complex, with one unmeasured section of *mokhâlef*, followed by an unmeasured section of *maqlub* (sections 7 and 8). In addition, this *radif* ended rather unusually in the *mokhâlef* mode with the *gusheh masnavi* (section 10). *Radif* 4 had eleven sections in the *mokhâlef* mode: three sections of the *gusheh mokhâlef*; *pas hesâr*, *maarbad*; *hâji hassani*; *bastenegâr*; *naqmehe-ye maqlub*; *dobeiti*; *par-e parastu*; and *hazeen* (sections 24-30 and 32-35; section 31 was *maqlub*), the majority of these sections being unmeasured. The organisation of *mokhâlef* in *radif* 1 was similar, but there was only one section of the *gusheh mokhâlef*, and *pas hesâr*, *maarbad*, *dobeiti*, and *par-e parastu* were omitted. In both *radifs* 1 and 4, *maqlub* appeared between *bastenegâr* and *naqmehe-ye maqlub*. *Mokhâlef* appeared several times in *radif* 3, mainly as an unmeasured section (sections 11, 12, 16, 23, and 26), and once in the form of a *châhârmezrâb* between other *gushehs* in the *mokhâlef* mode:

<table>
<thead>
<tr>
<th>Hoz</th>
<th>Mo(u)</th>
<th>Mo(cm)</th>
<th>Haz</th>
<th>forud (radif 3)[15-19]</th>
</tr>
</thead>
</table>

Variation of the organisation of *mokhâlef* in the *radifs* was brought about mainly through the use of extra *gushehs*, of which many more were found in comparison with performances. Of those which shared the *mokhâlef* mode - *hâji hassani*, *bastenegâr*, *pas hesâr*, *dobeiti*, *maarbad*, *par-e parastu*, *hazeen*, and *naqmehe-ye maqlub* - only the last two were heard in the analysed performances. Conversely, the *gusheh masnavi*, heard in eleven performances, was only found in one *radif*, the vocal *radif* (similarly, this *gusheh* is only found in the vocal *radif* of Châhârgâh).

*Mokhâlef* is an interesting modal section, characterised by its close association
with a number of shorter gushehs which have become an integral part of it. These gushehs might be regarded as forming a series of concentric circles, showing degrees of proximity to the main mokhâlef mode. At the centre would be the gusheh mokhâlef itself; the first circle would include gushehs such as naqme-yé maqlub, masnavi, and hazeen, which share the mode of mokhâlef; and around this would be another circle which would include gushehs such as maqlub and hesâr, which are found in close association with mokhâlef, but which are modally and melodically independent from it. In the ongoing development of the musical tradition, a number of gushehs in different dastgâhs are gaining in prominence, such that they are occasionally performed independently of the parent dastgâh. This is the case with mokhâlef in Segâh, and it may be that this modal section is in the preliminary stages of becoming a dastgâh in its own right. Indeed, examining the structure of mokhâlef may provide clues as to the evolution of dastgâhs, in particular the way in which smaller gushehs have become associated with it, gushehs which could eventually become the constituent sections of a dastgâh called mokhâlef. This idea is further supported by Nettl who, citing the work of Sádeghi (1971:54), names mokhâlef (of Segâh) as one of a number of prominent gushehs in various dastgâhs which may be "... on the way to becoming independent secondary dastgâhs." (1987:26).

The flowcharts in Figures 5-8 illustrate the internal organisation of the modal area of mokhâlef in the analysed performances, and also that of darâmad, zâbol, and muyeh (the internal details of each modal section are also listed for individual renditions in Appendix Two). Each of these modal sections can clearly be seen to vary in the degree of complexity of their internal organisation, and whilst it has only been possible to discuss mokhâlef - the most complex in this respect - in some detail in this section, other gushehs should also be briefly mentioned. As a modal section, the darâmad was, like mokhâlef, relatively complex, whilst zâbol was less so, generally comprising a single unmeasured section or alternating unmeasured and measured sections. Muyeh was less complex than zâbol in terms of internal organisation, generally presenting a single unmeasured section either

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107 Sádeghi does not list mokhâlef in Chahârgâh, thus implying a more prominent role for this gusheh in Segâh than in Chahârgâh. In contrast, however, Nettl in his analysis of Segâh (albeit restricted to seven performances and carried out mainly for the purpose of comparison with his data on Chahârgâh), suggests a less important role for mokhâlef in Segâh as compared with Chahârgâh (1987:61-2).
Figure 5 - Flowchart Showing the Progression of Sections Within the Opening Darāmad Modal Section in the Analysed Performances of Segāh
All zābol modal sections are preceded by darāmad except performance 12

All zābol modal sections begin and end with zābol (unmeasured) except 1, 3, 15, which begin with measured sections, and 23, 24, which end with bastenegār.

Zābol
(statement before the main section)

(darāmad) — ZĀBOL (unmeasured) — ZĀBOL (measured) — BASTENEGĀR

Zābol modal section followed by muye in fifteen performances, by mokhālef in six performances, by hozān in one performance, and by the darāmad mode in three performances.

Figure 6 - Flowchart Showing the Progression of Sections in the Mode of Zābol in the Analysed Performances of Segāh
Sections in the *muyeh* mode are found in highly variable positions in comparison with *darāmad* and *zābol*.

**Figure 7 - Flowchart Showing the Progression of Sections in the Mode of Muyeh in the Analysed Performances of Segāh**
Mokhâlef (unmeasured) begins and ends all sections in the mokhâlef mode except 9, 20, 29, which begin with mokhâlef (measured); 5, 23, 26, which end with mokhâlef (measured); 8, 9, 15, 16, which end with hazeen; 18, 3, which end with masnavi; and 22, which ends with naqmeh-ye maqlub.

Figure 8 - Flowchart Showing the Progression of Sections in the Mode of Mokhâlef in the Analysed Performances of Segâh
as gusheh muyeh or shekasteh muyeh. However, muyeh was more varied than other gushehs in its positioning (discussed above). Finally, gushehs such as maqlub, hesâr, and hozân were least complex in internal organisation, generally comprising a single unmeasured section. Just as the overall modal organisation of Segāh represents a range of variation around certain patterns, so each individual modal section and gusheh displays a variety of internal organisation, mainly through changes in metric character marking off individual sections, and also through the inclusion of shorter gushehs within a longer gusheh or modal section. Whilst the internal organisation of sections seems to be less readily discussed by musicians than the ordering of those sections relative to one another (discussed in Section 4.4.1), the above analyses suggest that the underlying processes are the same: that musicians internalise the information through hearing many different versions of the dastgâh in the course of their training.

4.4.4 Relative Lengths of Sections

Having considered the inclusion and ordering of gushehs and broad modal sections within Segāh, it would also seem relevant to assess the relative lengths of such sections within the dastgâh. In the course of this analysis, the individual sections of each version of Segāh were timed, and these timings are presented as part of Appendix Two. The data generated by the analysis of these timings can be seen in Appendix Three.108

It is generally acknowledged (within the literature and by musicians) that the darâmad is the most important section of any dastgâh. Not only is it usually the longest modal section, but its modal structure pervades the whole dastgâh, from the opening darâmad section, through the short foruds heard at the end of gushehs, to the extended forud heard at the end of the dastgâh. Moreover, as discussed earlier, measured pieces in the genres of pishdarâmad, tasnif, and reng, may be heard at the beginnings and/or ends of performances, and whilst such

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108 The figures presented below and in Appendix Three give no indication of absolute lengths of individual sections, but percentages of each performance relative to the overall length of that performance. For absolute timings, the reader is referred to Appendix Two. It should also be noted that all of the percentage figures in this chapter are rounded to the first decimal place.
pieces often explore other modal areas of the dastgāh, they are usually grounded in the darâmad mode. In order to make appropriate comparisons, therefore, it has been necessary in this analysis to consider darâmad material in three categories: a) the percentage of material in each rendition broadly in the darâmad mode, including measured sections at the beginnings and ends of renditions which, whilst they are located in the darâmad area, include a certain amount of material in modes other than that of the darâmad; b) the percentage of material in each rendition in the darâmad mode, excluding measured sections at the beginnings and ends of renditions which explore other modal areas, but including other measured sections, which remain largely within the darâmad mode; and c) percentage of material in each rendition in the gusheh darâmad, and generally positioned at the beginning of renditions (these figures are listed in Columns A, B, and C respectively in Table 1a, Appendix Three).

Darâmad was the longest gusheh (category c) above; longest in proportion to the lengths of each individual performance), in eleven in the analysed performances forming an average 16.6% of performances. However, if one considers the figures for the other categories, material in the darâmad mode played a much more prominent role in the analysed performances, being the (proportionately) longest modal section in a) twenty-four performances, with an average 51.9%; and b) twenty-one performances, forming an average of 35.2%. Focusing on material in the darâmad mode as represented by category b), the percentages ranged from 10.2% of performance 12 to 70% of performance 10 (a range of 59.8%, and the widest range for any modal section). There was generally less material in the darâmad mode at the ends of performances in comparison with performance openings (but see performance 23 in which they were almost equal, with the final section in the darâmad mode actually slightly longer, due to the inclusion of the gushehs rajaz and hodi va pahlavi in this performance).

Zâbol was generally shorter than the darâmad, with a smaller range of variation in proportionate size of gusheh (see Table 1b). Performance 12 (which had the

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109 And as such, these were generally included as part of the darâmad modal area in the analyses of Section 4.4.1, see Footnote 98.

110 Table 1a also lists separate figures for each rendition for material in the darâmad mode in various positions in the dastgāh.
proportionately shortest darāmad) had the longest zābol - 34.1% of the whole performance - whilst performance 17 (with a relatively high percentage for darāmad) had the shortest - 5.5%. The range was thus 28.6%, and the average percentage was 13.5%. Unlike the darāmad, zābol was not heard in the conclusion to performances, with the exception of performance 8, where it assumed the role usually played by muye (or shekasteh muye) as a bridge between mokhālef and the descent to darāmad in the final forud.

Table 1c shows muye to be on average shorter than zābol in the analysed performances, ranging from 0.6% of performance 9 to 18.3% of performance 4 (a range of 17.7%). Column A includes the appearance of muye in both of its usual positions, whilst columns B and C list the percentages for these positions individually. The average percentage for muye was 8.6%.

As a broad modal section (including a number of smaller gushehs), mokhālef ranged from 6% of performance 7 (which had a relatively long darāmad and muye) to 40% of performance 12 (which had a shorter darāmad but a relatively long zābol and muye). This represents a total range of 34%, which is larger than zābol but smaller than darāmad (see Tables 1d and 1e). The average percentage for the mokhālef mode was 23.3%. Table 1d also lists figures for the gusheh mokhālef, which formed an average 19% of performances, and ranged from 37.2% of performance 26 to 5.3% of performance 24, a range of 37.2%.

Fifteen performances included gushehs other than the four main gushehs and the shorter gushehs modally attached to them. These were maqlub, hesār, and hozān (and two extended tombak solos in performance 9) and are listed under "other" gushehs (see Table 1f).

The averages and range of percentages for the broad modal sections of the analysed performances of Segāh can be summarised as follows:
There is an interesting correlation between the figures in these two columns, particularly between those for darəmad and mokhālef and between those for zābol and muyeh. Thus, darəmad, with a relatively high average percentage also had a large range of percentages, whilst muyeh, with a low average percentage had a relatively small range of percentages.

In the radifs studied, the darəmad was also the longest broad modal section on average, followed by mokhālef, muyeh, and zābol in that order. However, the average percentage for the darəmad mode - 34.9% - was much less than that for the performances, as was the range of percentages: 22.9% (from 26.2% of radif 1 to 49.1% of radif 3). The figures for the gusheh darəmad were even lower, with an average of 10.9% - ranging from 1.5% of radif 1 to 11.4% of radif 3, a range of 9% -and in none of the radifs was darəmad the longest gusheh (as opposed to broad modal section). Zābol was also shorter on average than in performance, with an average of 7.8% and a range of 6.1%: (from 3.4% in radif 3, which had the highest percentage for darəmad as a broad modal section, to 9.5% in radif 1, which had the lowest percentage for darəmad). In contrast, the average percentage for muyeh was higher in the radifs than in performance - 13.9% - but with a similar range: 17% (from 3.9% in radif 3 to 20.9% in radif 1), suggesting

<table>
<thead>
<tr>
<th></th>
<th>average</th>
<th>range</th>
</tr>
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<tbody>
<tr>
<td>darəmad</td>
<td>51.9%</td>
<td>71.1% (10.2% - 81.3%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(heard in 26 performances)</td>
</tr>
<tr>
<td>mokhālef</td>
<td>23.3%</td>
<td>34% (6% - 40%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(heard in 26 performances)</td>
</tr>
<tr>
<td>zābol</td>
<td>13.5%</td>
<td>28.6% (5.5% - 34.1%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(heard in 25 performances)</td>
</tr>
<tr>
<td>muyeh</td>
<td>8.6%</td>
<td>17.7% (0.6% - 18.3%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(heard in 25 performances)</td>
</tr>
<tr>
<td>others</td>
<td>2.7%</td>
<td>15.2% (0.8% - 16%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(heard in 15 performances)</td>
</tr>
</tbody>
</table>

111 The figures for the darəmad mode in this table include all of the material encompassed in category a) above.
that *muyeh* plays a more prominent role in the *radifs* than in performances. The *mokhâlef* modal section also had a larger average than in the performances - 28.9% - but a smaller range of 20.5% (from 18.7% in *radif* 2 to 39.2% in *radif* 3). This high average was mainly a result of the large number of *gushehs* within the modal area of *mokhâlef* in the *radifs*: the average figure for the *gusheh* *mokhâlef* alone was only 15.6% in the *radifs* as compared with 19% in the performances. The category of "other" *gushehs* was considerably longer on average in the *radifs* than in the performances (although the range of percentages was similar), and this was indicative of the important roles of *gushehs* such as *hesâr* and *maqlub* in the former (and also the section in the mode of *Shur* at the end of *radif* 1).

The following table shows average percentages and range of average percentages for each modal section within the *radifs*:

<table>
<thead>
<tr>
<th></th>
<th>Average</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>darâmad</em></td>
<td>34.9% (4 <em>radifs</em>)</td>
<td>22.9% (26.2% - 49.1%)</td>
</tr>
<tr>
<td><em>mokhâlef</em></td>
<td>28.9% (4 <em>radifs</em>)</td>
<td>20.5% (18.7% - 39.2%)</td>
</tr>
<tr>
<td><em>muyeh</em></td>
<td>13.9% (4 <em>radifs</em>)</td>
<td>17% (3.9% - 20.9%)</td>
</tr>
<tr>
<td><em>zâbol</em></td>
<td>7.8% (4 <em>radifs</em>)</td>
<td>6.1% (3.4% - 9.5%)</td>
</tr>
<tr>
<td><strong>others</strong></td>
<td>14.5% (4 <em>radifs</em>)</td>
<td>17.3% (4.1% - 21.4%)</td>
</tr>
</tbody>
</table>

In terms of broad modal sections, therefore, the analysed *radifs* tended to have a (proportionately) longer *muyeh* and a higher percentage of "other" *gusheh* sections than performances, but a shorter *darâmad* and *zâbol*. *Zâbol*, in particular appeared to lose its position to *muyeh* as the third most important *gusheh* (these two *gushehs* effectively reversed percentages between performances and *radifs*).

However, the above discussion has only considered averages. If one examines the lengths of individual modal sections in each performance, the situation is relatively complex, since not all performances followed the average proportions listed above. Whilst the longest modal section was often the *darâmad*, followed by *mokhâlef*, the proportions varied a great deal. Based on a division of each
performance into broad modal areas centred around the four main gushehs, Table 2a (Appendix Three) lists the proportions for versions of Segāh analysed, and on the basis of this, the performances and radifs were grouped according to the relative lengths of each of the main modal sections (see Table 2b; the category of "other" gushehs is also included, and this was usually the shortest section, although there were exceptions to this). The most common pattern was that found in fourteen performances: the darāmad was the longest modal section, followed by mokhālef, zābol, and muyeh in that order. In a further six performances, darāmad and mokhālef were still the longest sections, but the positions of muyeh and zābol were reversed, such that muyeh was longer than zābol. That five of these performances were by musicians of the older generation is interesting in view of the fact that although this was not the most common pattern of modal section proportions in the performances, it was that found in two of the radifs - 3 and 4 (disregarding the long "others" section in radif 4 which resulted from the prominence of the gusheh hesār in this radif) - as well as being the radif average, and the relative prominence of muyeh in the radifs was noted above. This group of performances may thus represent an older practice in which muyeh was more prominent than zābol, and which has been maintained in some of the radifs. In two performances and one radif, mokhālef was longer than darāmad, followed by zābol and muyeh in performance 12, zābol and darāmad in performance 3, and darāmad and muyeh in radif 1. The remaining four performances and one radif presented slightly varied patterns of modal section proportions, as shown in Table 2b.

The analyses of this section have focused on four main aspects of the structural organisation of Segāh: the specific gushehs and modal sections presented; their order; their internal organisation; and their relative lengths. The analyses have endeavoured to identify patterns and thus to establish basic principles of organisation and variation in radifs and performances, as well as exploring the relationships between the learnt repertoire and improvised performance, and this will be discussed more fully below.
4.5 The Making of Segāh

4.5.1 Structuring Principles

Certain clear patterns emerged from the analysis of modal organisation in Section 4.4. All twenty-six analysed performances of Segāh included darāmad and mokhālef, whilst zābol and muyeh were only omitted from one performance each. The analysed radifs presented the same central core of gushehs (and in essentially the same order) but also included the gusheh maqlub as part of the core. Generally speaking, performances were more diverse than the radifs in terms of their modal organisation, but still adhered to similar principles: there was a certain unity among the performances, but not as "tight" a core as found in the radifs.

However, whilst the progression of central gushehs/modal sections found was that loosely defined by tradition - comprising the core of darāmad, zābol, muyeh, mokhālef, and maqlub, with a return to the darāmad mode for the final forud - it was interesting that no two of the analysed versions of Segāh were identical in terms of overall organisation (even by the same musician). In performances, the core of gushehs was varied in a number of ways - by the restatement, rearrangement, or (occasionally) omission of main gushehs and/or the inclusion of shorter gushehs - but this variation was always within certain controlling boundaries, and it has been suggested that both the core and the boundaries of variation are internalised by musicians through learning the radif (in different versions) and through many years of playing and listening to the music.

All thirty analysed versions of Segāh began in the darāmad mode and ended in the same mode (with the exception of one radif and one performance), and the overall shape of renditions followed the gradual rise in pitch and descent at the end described earlier. Indeed, it is important to note that most of the other dastgāhs in the Persian radif share the same overall arch shape, with a pattern of rising pitch and tension embodied in each successive gusheh, the tension being released in the final descent to the forud. It would thus seem likely that the gradual rise in pitch, climax, and the final descent embodied in the central
gushehs of Segâh fulfil certain unspoken aesthetic and structural criteria for a satisfying rendition. Indeed, it might be argued that this constitutes a central factor in the shaping of the dastgâh, and in the close correlations found between the twenty-six analysed performances despite the relative freedom available to musicians. It seems that gushehs may be added, omitted, or rearranged if the musician is able to do so whilst maintaining the rising tension of the arch shape of the performance. Thus, for example, whilst maqlub formed the owj of Segâh in all of the radifs, it was omitted from eighteen of the analysed performances, in which mokhâlef took on the role of the owj of the dastgâh, "compensating" for the omission of the climactic maqlub. Similarly, certain sequences of gushehs were simply not heard (or very rarely heard) in the analysed versions of Segâh, and thus appeared to lie outside (or at the edge of) the limits of acceptable modal progression in this dastgâh. Thus, to give a few examples: muyeh rarely preceded zâbol (the only cases being radif 1 and performance 13); maqlub never preceded mokhâlef; shekasteh muyeh was generally played in the descent from the mokhâlef mode towards the end of Segâh, and in the relatively few renditions in which this gusheh was heard before mokhâlef, it was also heard again after mokhâlef (in radif 2 - the only radif in which shekasteh muyeh was found - there was a return to shekasteh muyeh in the form of an eshâreh in the descent at the end of maqlub); and the following progression of gushehs: daramad moving directly to mokhâlef, followed by zâbol, was not heard in any of the analysed versions of Segâh. These examples indicate that musicians clearly follow certain patterns in their performances, patterns which are learnt from studying the radif (since many of these patterns are embodied within the radif), and also from the performance tradition, but which are rarely discussed by teachers.

When one considers the positioning of the two most important gushehs - daramad and mokhâlef - in performances, an interesting structural pattern emerges. A large number of performances seemed to be divisible into two main sections: the first starting with the daramad and the second with mokhâlef (which represents the only significant shift from the mode of Segâh in this dastgâh), both of these main gushehs being followed by a series of shorter gushehs. In the case of the

112 Furthermore, it is interesting that this arch shape is heard not only in the Persian tradition, but also in other modally-based musics of the Middle East.
darāmad, the shorter gushehs which followed it were generally modally independent (although still closely related to the darāmad), whilst those following mokhālef tended to be based in the same mode. The second half of Segāh (beginning with mokhālef) started between 46% and 78% of the way through performances (but between 50% and 60% of the way through in just under half of the performances studied). A similar situation was found in radifs 2 and 4, although mokhālef appeared later (62% and 55% of the way through respectively) due to the prominence of hesār between muyeh and mokhālef, and in radif 1, mokhālef appeared earlier (40% of the way through) as a result of the series of extra gushehs associated with rohāb at the end of this radif (the unusual organisation of radif 3, noted earlier, makes it difficult to specify a figure for this radif).

Nettl has written about the relative lengths of gushehs and their positioning within dastgāh Chāhārgāh (1987:53-54), and suggests three different types of performance: firstly, where all of the gushehs are of approximately equal length; secondly, where the darāmad is the longest gusheh, followed by gushehs which become progressively shorter; and finally, where a performance is divisible into two main sections each led by a major gusheh which is usually followed by shorter renditions of other gushehs. Whilst the analysed examples of Segāh do not correspond exactly with any of these categories, they seem to be closest to Nettl's third category, but with the shorter gushehs accorded more importance than in his examples.

A further principle of modal organisation which emerged from the above analysis was the relatively stereotyped nature of the beginnings and endings of performances (and radifs), with the central sections allowing more scope for variation. In fact, this aspect of the music can be heard at various structural levels. For example, as will be discussed in the following chapter, individual gushehs were also most predictable at their beginnings and ends. Thus, it would seem that stereotyped openings are necessary in order to establish the identity of the dastgāh (or gusheh), after which the performer is free to explore within certain limits, until the end when the identity of the dastgāh (or gusheh) needs to be re-established for a satisfactory conclusion. Indeed, it might be suggested that a basic necessity of any communicative activity is firstly to establish a basis for the
communication, to communicate, and then to satisfactorily terminate the communication.

There thus seem to be a number of important principles in the organisation of modal sections in Segāh, in particular the arch shape of the music, the relatively stereotyped boundaries of the dastgāh, and the organisation of the music around two main gushehs: darāmad and mokhālef. Whilst the first two principles appear to be general features of Persian music, evidence from the literature suggests that the third is not generally characteristic, although it may be found in other dastgāhs. Such principles are not discussed as such in the teaching situation, and since there is no definitive version of any section of the Persian classical repertoire, it seems highly likely that (as already suggested) musicians use extant versions as models from which to abstract such general principles, which are then used as a basis for creativity. It seems likely that these principles, through being heard repeatedly over many years (both within the radif and in improvised performances), become part of the internalised musical "grammar" which underlies creativity in performance, and effectively serve to control and shape musical expression, channelling creativity in certain directions. Indeed, it might be suggested that general principles such as the arch shape of Segāh and the stereotyped beginnings and endings may be psychologically-rooted and aesthetically necessary for this kind of modal music, and perhaps for other musics as well.

In the absence of discussion by musicians of the ways in which principles such as those outlined above bear upon the improvisational processes, the means by which a musical idea or structure may be varied around a hypothetical (and often unspoken) core, which controls the potentially infinite variation, will be referred to in the present study as "controlled variation". Such controlled variation lies at the heart of this improvised music, and was clearly apparent in the above analyses: in the inclusion, ordering, and lengths of gushehs and broad modal sections; in the overall shape of the music; and also in the brief discussion of modal pitch functions, which are variable around certain controlling principles and which will be discussed further in Chapter Five. Controlled variation is particularly interesting because it is found at various levels of musical organisation, and will be encountered in the more detailed musical analyses of the
following chapters.

It should be noted that the similarities between radifs and performances in terms of modal structuring were not unexpected, given that learning the radif is an important means by which musicians come to understand the musical structures in the first place. However, there were also interesting differences - indeed, it is significant that there was a certain consistency among the performances on certain points of structure which differed from the radifs - and these will be considered in Section 4.6.

4.5.2 The Relative Importance of Gushehs

Within the Persian classical system, some sections of the repertoire clearly play a more important role than others. Indeed, Nettl has even suggested that this aspect of the music may be somewhat reflective of Iranian society, in which elaborate hierarchies are prevalent (1979, 1983:139,207, 1987:153-6). A number of writers have discussed the relative importance of gushehs. Farhat, for example, distinguishes between the main gushehs of a dastgāh, and what he terms the "tekke": short pieces which can be heard in a number of dastgāhs (1990:22,109-112; Zonis follows the same distinction, 1973:100-1). Sādeghi also suggests a tiered structure, but identifies three levels or categories of gusheh importance (1971:56-57). The first category - "shāh gushehs" (lit. "king gushehs", a term previously used by Caron and Safvate [1966:112]) - includes the most important gushehs of any dastgāh (generally the longest and those most subject to improvisation). These shāh gushehs usually constitute a major shift in terms of range and important pitches relative to the home mode of the dastgāh as represented by the darāmad, and might also constitute a larger modal section in which other gushehs are heard. The next category, "secondary gushehs" (no Persian terminology is given by Sādeghi), are usually of medium length and are generally less subject to variation in performance than the shāh gushehs, essentially serving to "... fill the gaps between the principal sections of the dastgāh ..." (1971:57). Finally, what Sādeghi refers to as "additional fixed gushehs" (similar to Farhat's tekkes) are generally short and less important than the first two types, and often have a regular metric and/or rhythmic structure, sometimes related to a particular poetic form, to which
the *gusheh* might be sung. Using similar terminology to Sâdeghi, During distinguishes two main types of *gusheh*: "shâh gushes" and "gushes de moyenne importance" ("gushehs of medium importance"), each of which comprises two further subdivisions (1984a:141-2). In contrast to the tiered categories of Farhat, Sâdeghi, and During, Nettl suggests a continuum between the most and least important *gushehs*. He describes twelve types of *gusheh* representing points along this continuum, using a number of criteria, such as the specificity of a *gusheh* to one or more *dastgâhs*, the internal complexity of the *gusheh*, and its metric character (1987:24-29). Whilst none of the above writers clarify the extent to which such categories are discussed by musicians, it is clear that distinctions are made within the tradition between *gushehs* of greater and lesser importance.

The importance of a *gusheh* would seem to depend upon a number of closely related factors, some of which were evident in the preceding analyses, and including regularity of appearance; length; complexity of internal organisation; the degree to which the musical material of the *gusheh* can be subject to improvisation; the metric specificity of the musical material; and whether the *gusheh* is found in more than one *dastgâh*. For example, in terms of regularity of appearance, whilst the *radifs* of Segâh considered in this chapter varied to some extent in their complement of *gushehs*, the following were found in every version: *darãmad*, *zãbol*, *muyeh*, *mokhâlef*, and *maqlub*. These *gushehs* might thus be regarded as being central to the *radifs* of Segâh. In performances, however, there was a greater differentiation between *gushehs*: whilst *darãmad* and *mokhâlef* were heard in every version, *zãbol* and *muyeh* were omitted from one performance each, and *maqlub* was only heard in eight performances. Thus, it would seem that whilst certain *gushehs* are essential for a satisfactory rendition of a *dastgâh*, and are included in all performances (in the case of Segâh: *darãmad* and *mokhâlef*), other important, but not essential, *gushehs* are heard in most performances (*zãbol* and *muyeh*), and less important *gushehs* will only be heard in some performances (for example, *hesâr* and *maqlub*).

This "hierarchy" of *gushehs* according to regularity of appearance correlates with the other criteria listed above, such as length of *gusheh* and complexity of internal organisation. Not only were the *darãmad* and *mokhâlef* the only *gushehs* to be heard in all of the analysed performances, but they were also the longest and
most internally complex, encompassing shorter gushehs within their modal spheres, and including a relatively high proportion of measured material. In comparison, zäbol and muyeh were shorter, less complex, and included few extra gushehs or measured material. Significantly, where muyeh did play a prominent role - in the analysed radifs - this was accompanied by a more complex internal organisation for this gusheh: three of the analysed radifs included more than one section in the mode of muyeh in their first half, and muyeh was the only gusheh in which there was more measured material (on average) in the analysed radifs than in the performances (see Appendix Three, Table 3e).

Whilst some gushehs are specific to (and often characteristic of) a particular dastgâh in the radif, others may be heard in more than one dastgâh. In the latter case, gushehs sharing the same name may also share specific musical material (but usually in different modes), although the musical connection between gushehs of the same name in different dastgâhs is not always so clear. In addition, there are a number of gushehs such as kereshmeh, bastenegâr, and zanguleh which may be heard in all of the dastgâhs, and which are usually short, with a relatively fixed rhythmic structure, and which are least likely to be subject to improvisation (Sâdeghi's "additional fixed gushehs" and Farhat's "tekkes"). Generally speaking, the most important gushehs are specific to a particular dastgâh, whilst less important gushehs may move freely between dastgâhs.\(^\text{113}\) In the radifs of Segâh, the darâmad and mokhâlef are specific to Segâh\(^\text{114}\) (apart from the sharing of gushehs with Châhârgâh) whilst other gushehs can be found in one or more other dastgâhs. The sharing of gushehs, however, varies from one version of the radif to another. For example, in Farhat's listing and in radif 4, zäbol is also found in Homâyûn and Râst Panjâgh. Muyeh appears in Shur in the listing of Khâleqi as given in Khatschi (1962:77-80), but in none of the other versions of the radif, and the set of gushehs associated with the gusheh rohâb heard at the end of radif 1 (but in none of the other radifs of Segâh) are also found in a number of other

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\(^{113}\) The special relationship between Segâh and Châhârgâh should, however, be noted. Although these two dastgâhs differ in matters of modal structure and cadential formulae, they share the same central gushehs, both in name and also in general melodic outline and particular motifs. These gushehs do not, however, diminish in importance as a result of this sharing.

\(^{114}\) Since "darâmad" simply means "opening", the use of the same term for the opening gusheh of each dastgâh does not constitute a "sharing" of this gusheh between dastgâhs, and the musical material in each case is highly specific to the dastgâh in question.

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The three *gushehs* in the analysed versions of *Segāh* most commonly heard in other *dastgāhs* are *hazeen*, *hesār*, and *masnavi*, and Figure 9 lists the occurrence of these *gushehs* in all twelve *dastgāhs* in *radifs* 2 and 4, in order to illustrate the ways in which *gushehs* may be found in different *radifs*:

|        | *hazeen* |  |  | *hesār* |  |  | *masnavi* |  |  |
|--------|----------|  |  |--------|  |  |----------|  |  |
| radif 2 | X        | X | X | X      | X | X | X        |  |  |
| radif 4 | X        | X | X | X      | X | X | X        |  |  |

*Figure 9 - The Occurrence of *Hazeen*, *Hesār*, and *Masnavi* in *Radifs* 2 and 4.*

However, patterns of *gusheh* distribution are complex, and a *gusheh* found in *Segāh* in *radif* 1 may not be found in any other *dastgāh* in that *radif*, but in another *dastgāh* in a different version of the *radif*. Whilst limits of space preclude comprehensive discussion of this aspect of the music, the important point is that *gushehs* may be heard in more than one *dastgāh*, but generally speaking, the more important a *gusheh* is, the less likely this is to be the case.

The various criteria discussed above are closely correlated, such that the longer

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and more complex gushehs (in terms of internal organisation) also tend to be those which are specific to a particular dastgāh, and which are rarely omitted in radifs and performances of that dastgāh. Thus, the analyses of this chapter have suggested that in terms of these criteria, the darāmad is the most important gusheh in Segāh, followed by mokhālef, zābol, muyeh, and maqlub in that order. It should be noted that these central gushehs embody the arch shape of Segāh discussed above. Indeed, it is possible that these gushehs have become prominent through their very positioning at critical points in the overall progression of the dastgāh.

The relative importance of gushehs is not discussed by teachers, but appears to be inferred by pupils through learning the radif and listening to other musicians' performances. Moreover, since this is something which is not immediately apparent on hearing one performance or radif of a dastgāh, it is likely that the very process of learning a number of different versions of the radif during training (as well as extensive listening) enables students to discern the relative importance of gushehs, as they learn which gushehs are longer, which are rarely omitted from radifs and performances, and so on. One can thus see how, as suggested in Chapters Two and Three, the radif perhaps constitutes a form of "unverbalised theory" through which musicians learn to create, there being little need for any explanation on the part of the ostād. Also relevant to this discussion is the fact that gushehs differ in the degree to which the musical material is varied from one version to another, with more important gushehs generally subject to greater variation, and this is often related to the rhythmic and/or metric specificity of individual gushehs. This aspect of the music will be discussed more fully in Chapter Five.

Finally, it should be noted that not only does a hierarchy exist between the gushehs of each dastgāh, but also among the twelve dastgāhs themselves. Interestingly, the criteria for this hierarchy seem to be similar to those discussed above, such as length, organisational complexity, and the degree of distinctive material contained in the dastgāh. For example, Shur, the largest dastgāh, is generally considered to be the most important. Navā and Rāst Panjgāh, on the other hand, share many gushehs with other dastgāhs, and are generally regarded as the least important of the dastgāhs because of their derivative nature. Whilst
the relationship between dastgāhs is not the focus of the present study, it is nevertheless interesting that similar principles of organisation may be found at different structural levels of the musical system: in this case, the criteria which define the importance of gushehs relative to one another appear to be similar to those used to categorise dastgāhs (for further discussion of the relative importance of dastgāhs see Nettl 1987:34-9).

4.6 Gushehs in Radifs and Performances: Some Anomalies

It is clear from the above analyses that radifs and performances of Segāh share a great deal in terms of sectional organisation, generally using the same central gushehs and maintaining the overall arch shape of the dastgāh. Thus, as discussed above, it would seem that through learning different versions of the radif and by listening to performances over a number of years, musicians are able to discern the central gushehs and to subsequently use these in their improvised performances. However, whilst important aspects of the radif were manifest in performances - indeed some were positively accentuated - others were absent, or even reversed. For example, one important difference between radifs and performances of Segāh was the wider range of gushehs used in the former. Thus, the gushehs of radifs 1-4 (listed in Figure 3 above) were represented rather sparsely in performance, the majority of performances being composed of the central core of gushehs with brief forays and allusions to other gushehs. This relatively sparse use of gushehs from the radif in improvised performance was also noted by Nettl in his brief analysis of Segāh (1987:61-2). However, Nettl was dealing with a small sample of only seven short performances, and the absence of detailed analyses of other dastgāhs makes it difficult to ascertain the extent to which this might be a characteristic specific to Segāh or a general feature of the Persian musical system, although Nettl does also make a similar observation with regard to dastgāh Shur (Ibid.:74).

A number of gushehs, whilst of some significance within the radifs, were less important in performances. Muyeh, for example, comprised an average of 13.9% of the analysed radifs, but only 8.6% of performances, and was the only central gusheh to be significantly longer (on average) in the radifs than in performances
Moreover, this also correlated with the more complex internal organisation of *muyeh*, and the greater use of measured material in this *gusheh* in the radifs than in performances (note also that in radif 1, a section of *muyeh* actually preceded and continued after *zâbol*). Where *muyeh* assumed any prominence in performance at all, it tended to be in renditions by older musicians, suggesting possible changes within the tradition and perhaps pointing to a diminishing role for *muyeh* in the performances of younger musicians.

In the case of *maqlub*, whilst this *gusheh* was found in all of the analysed radifs (being particularly prominent in radif 2), it was only heard in eight of the performances (*mokhâleť* functioning as a substitute "climactic" *gusheh* in the other performances). Similarly, *hesâr* played a prominent role in both radifs 2 and 4, being the longest *gusheh* after the second *darâmâd* in the former, and comprising several sections in the latter (but was notably absent from radif 1). In both of these radifs, *hesâr* was positioned between *muyeh* and *mokhâleť*. And yet this *gusheh* was only heard in eleven of the analysed performances, in ten of these only briefly and in a different position - in the final descent from *mokhâleť* to the *darâmâd* mode. Only in performance 23 was *hesâr* heard in the same position as in the radifs, before *mokhâleť* (seeming to take the place of *muyeh*, which was omitted in the ascent to *mokhâleť* in this performance).115

It is unclear why *gushehs* such as *maqlub* and *hesâr*, which played a relatively important role within the analysed radifs, should be heard rather infrequently in performances, and often with changed roles and even positioning. This seems to contradict the idea that students infer the importance and positioning of a *gusheh* from learning the radif, and then translate this information into their performances. Focusing on *hesâr* in particular, there are a number of possible explanations for this. Firstly, as suggested for *muyeh*, it may simply be indicative of a changing tradition. It is possible that whilst *hesâr* has retained its position in some of the radifs, in the performance tradition it has gradually become less

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115 In Nettl’s brief analysis of *Segâh* (1987:61-2), *hesâr* is also notably absent from all but one of the analysed performances. Similarly, in his extensive analyses of *dasťgâh Châhârgâh*, Nettl notes an interesting difference between the "lengthy exposition" of *hesâr* in the radifs and the relatively brief appearance of this *gusheh* in the analysed performances of *Châhârgâh* (Ibid.:51).
important, changing from a central gusheh to a marginal, short, and largely optional section of Segah. The fact that the performances in which hesar was heard were mostly renditions by musicians of the older generation lends further weight to this argument. Moreover, there may be some significance in the fact that in Segah, hesar appeared in those radifs which were originally published as notations (radifs 2 and 4, although in the former, these were descriptive transcriptions of the accompanying sound recordings; and also Farhat's listing), and not in those originally published solely as sound recordings (radifs 1 and 3).

However, other factors should also be considered. For example, radif 1, generally considered to follow the older tradition, does not include hesar (although it is in Borumand's radif of Chahargah), and indeed, During's suggestion that Segah was in fact originally a short dastgah without "... the modulation to hesar and mokhalef." (1984a:133-4), might explain its omission from radif 1. The fact that a relatively large number of the musicians in the sample of performances analysed were former pupils of Borumand (indicative of his importance as a teacher, see Figure 2 in Chapter Two), may also partly explain the absence of hesar in some of the performances (although these musicians would also have learnt radifs from teachers other than Borumand in the course of their training). It is interesting that one of the analysed performances to include hesar (performance 11) was played by Borumand himself accompanying one of his pupils, Golpayegani (voice), despite the fact that hesar is omitted from his own radif of Segah. Hesar was also heard in performance 1, performed by Shajariãn and Lotfi (both former pupils of Borumand), but this gusheh was not heard in any of the other performances in which these musicians appeared. None of the other musicians who included hesar in their performances were associated directly with Borumand.

In separate discussions with Farâmarz Pâyvar and Jean During, both stressed that gushehs can move freely between dastgâhs in performance, particularly between Segah and Chahargah, and therefore regarded as insignificant the fact that hesar is included in Chahargah in Borumand's radif, but not in Segah. Both rejected the idea of a changing radif (but note During's discussion of changes within Segah above; see also Chapter Two, Section 2.2.3). Pâyvar suggested that the length of hesar in radif 4 is attributable to the completeness of this publication, collected as it was from a number of different sources (Interview 8.11.90, see Chapter
Two. However, these observations do not adequately account for the absence of hesār from so many of the analysed performances, and its consistent brevity and positioning after mokhālef when it did appear. Pāyvar also commented that the change from a-koron to a-natural makes hesār difficult to play on the santur.\(^{16}\) Whilst this is an important point, relating as it does to the ways in which instrument morphology may shape performances, yet four of the eleven appearances of hesār were played on the santur (performed by two of the five santur players in the sample analysed), and this would thus not seem to be an overriding factor in musicians' decisions regarding the inclusion or omission of this gusheh in their performances.

Hesar is the only gusheh to substantially change the home mode of Segāh, effectively transposing it up a (perfect) fifth, and stressing the interval between b-koron and a-natural. As such, it might be argued that the apparent tendency among musicians to omit hesār from performances of Segāh is indicative of a move away from modally diverse performances, perhaps as the result of a changing aesthetic and bringing the Persian classical tradition closer to that of the Arabic taqsim and possibly to earlier Persian practice (see Section 2.2.2 and also Farhat 1990:19-20). Indeed, it may be that the skill of handling the movement between modally distant sections of the repertoire is gradually being lost, a suggestion supported by the fact that morakkab navāzi is rarely heard in performances today, despite being regularly mentioned in the literature.\(^{17}\) However, this does not explain the prominent position which hesār appears to enjoy in Chāhārgāh, where its relationship to the home mode of the dastgāh is similar to that of hesār in Segāh.

One of the arguments presented by Pāyvar to support the idea of an unchanging

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\(^{16}\) Whereas other instruments have the whole gamut of pitches readily available without retuning, hesār can only be played on the santur if the a-koron in the highest octave has been previously retuned to an a-natural, and the gusheh is then played in this octave (see performance 27). Alternatively, the a-natural can be omitted altogether, as in performances 6, 9, and 29, in which hesār was characterised by the stressing of b-koran, particularly from the upper c. Of the eleven performances in which hesār was heard, only those played on the santur omitted the a-natural, this pitch playing an important role in versions played on other instruments. In addition, versions of hesār played on the santur tended to be shorter than those on other instruments.

\(^{17}\) Morakkab navāzi (for instrumentalists, or morakkab khāni in the case of singers) is the skilled technique of moving from one dastgāh to another using closely related gushehs as modal bridges, and requiring a highly detailed knowledge of the musical system.
radiif was the existence of radifs in published (in particular, notated) form (Interview 8.11.90). This represents a common view among musicians, and appears to place the published radiif in a position over and above the oral tradition, and this despite the fact that the radiif is in origin rooted in oral tradition. The importance of the oral tradition (as distinct from, but integrally related to the radiif in published form) has been discussed in Chapter Two. Whilst the depth of historical evidence represented by the available sound recordings was insufficient to allow definitive conclusions, the analysed performances certainly suggested that the role of hesar is changing (at least within the performance tradition), since musicians consistently chose either to omit it or to play it briefly in the descent from mokhalef, rather than before mokhalef, as in the radifs in which it was found.

The case of hesar becomes even more interesting when one considers three gushehs - masnavi, shekasteh muyeh, and hodi va pahlavi (and also rajaz)\(^\text{118}\) - in which the reverse situation was found: these gushehs were heard in approximately half of the analysed performances, but were absent from all of the instrumental radifs of Segah analysed. However, all three were part of the vocal radiif (radiif 2), and in addition masnavi is to be found in the vocal radiif of Chahargah, and hodi va pahlavi forms part of both vocal and instrumental radifs of Chahargah. The inclusion of these gushehs in so many of the analysed performances of Segah might be a case of the temporary movement of gushehs between dastgahs as suggested by Payvar and During for hesar. Alternatively, however, it might possibly indicate a more permanent change in the performance tradition, with a "migration" of gushehs from Chahargah to Segah. Since many instrumentalists also study the vocal radiif, it is clear how such gushehs can find their way into instrumental performances, and it is also possible that instrumentalists who included these gushehs in their performances of Segah were simply following current trends in the performance tradition. Nevertheless, it does seem rather curious that the majority of performances in which these three gushehs were heard were instrumental rather than vocal, given that these gushehs were only

\(^\text{118}\) Rajaz, which is a gusheh usually associated with Chahargah, was heard in two of the analysed performances of Segah, in both of which it followed hodi va pahlavi in the final forud section in the darãmad mode.
found in the vocal *radif* (in *Segāh*).\textsuperscript{110}

Another apparent anomaly is presented by a group of *gushehs* in the mode of *Shur* towards the end of Borumand's *radif* (*radif* 1): *rohāb, masihi, shāh khatāi*, and *takht-e tāqedis*. These *gushehs* were not in any of the other analysed *radifs* of *Segāh* (although they can be found in *dastgāhs* other than *Segāh*), and neither were they heard in any of the analysed performances. Given Borumand's importance as a teacher, and the fact that about one third of the performances analysed were by himself or his pupils, this is somewhat puzzling. These *gushehs* do in fact provide a rather odd ending to *Segāh*, and whilst they were claimed by both Pāyvar and During to represent earlier practices (see also During 1984a:134), they are not to be found in any of the earlier published *radifs* of *Segāh* (Pāyvar and During may, of course, have been referring to practices prior to the appearance of published *radifs*). Pāyvar suggested that these *gushehs* may have originally been played at the end of *Segāh*, and gradually found their way into other *dastgāhs*, such as *Navā*, where they sounded better (Interview 8.11.90). If this is the case, then it would seem likely that Borumand, in his search for the "authentic" tradition, reverted to the inclusion of these *gushehs*, which had by the middle of the twentieth century been dropped from other versions of the *radif* of *Segāh*, and from the performance tradition.

The discussion of this section highlights the importance of the ongoing performance tradition on the formative (and indeed mature) musician. Students clearly learn a great deal from listening to other performing musicians, and this raises important questions regarding the relationship between what is learnt directly from the *radif* and what is learnt through informal listening. Since this is an improvised tradition, musicians may introduce elements into their playing which are not necessarily derived directly from the *radif*, and which may be heard and later used by other musicians. As discussed in Chapter Three, after years of training, musicians become so imbued with the structures of the *radif*, that attempting to define where the *radif* ends and personal creativity begins is almost meaningless. Where performances consistently diverge from the *radif* on specific

\textsuperscript{110} It is interesting that in his analyses of *Chāhārgāh*, Nettl found that the group of *gushehs*, *hodi, pahlavi*, and *rajaz*,"... seems to be extremely rare in performances, but in the *radifs*, it has somehow held its own." (1987:45), essentially the reverse situation from that found in *Segāh* in the present analyses.

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points (as in the examples discussed above), this would seem to be indicative of a performance tradition which exists alongside, and which interacts with, the tradition of the radif. Thus, whilst there were important parallels between radif and performance versions of Segāh in terms of sectional organisation, the relationship between the two is clearly complex: some gushehs were prominent in the radifs, but heard less in performance; others were heard relatively frequently in performance, but were only to be found in the vocal radif. Generally speaking, whilst the analysed radifs used a larger number of individual gushehs than the performances, the latter demonstrated a wider range of variation in terms of sectional organisation.

The radif occupies a central position in the Persian classical tradition, but in performance its role varies from one musician to another: whilst some musicians stay close to the learnt repertoire in their performances (see performances 4 and 22 for examples of this in terms of sectional organisation), others draw freely from the performance tradition in their improvisations. Moreover, a musician may vary in his proximity to the radif in different performances (compare performances 12 and 22 by the same musician, which represent two extremes in this respect), and even within the same performance, different aspects of the music may display differing degrees of closeness to the radif. For example, whilst performance 4 was close to the radif in the complement of gushehs used, it included rather rapid changes of metric character (not characteristic of the radif, but characteristic of the particular performer) with few long sections in the unmeasured āvāz style (the longest being just over 1 minute). Similarly, performance 23 was the only performance in which hesār was heard in the same position as in the radifs and was the only performance to include the gusheh hožān. On the other hand, this rendition also included hodi va pahlavi, not found in the instrumental radifs of Segāh, and rajaz (one of only two analysed performances to include this gusheh), not found in any of the radifs of Segāh. Performance 7 was closest to the instrumental radifs in its many subdivisions of muye, but also included shekasteh muye which was only heard in the vocal radif of Segāh. Performances 1 and 6 included all of the gushehs heard in the vocal radif, but omitted from the instrumental radifs of Segāh, in addition to which both used hesār as a rather marginal gusheh after mokhālef. However, performance 1 was one of only eight performances to include maqlub which was central to all of
the radifs. Furthermore, performances also varied in their proximity to the radif in terms of specific musical material, and this will be discussed in the following chapter.

Whilst the main focus of this chapter has been on general patterns of organisation, and limits of space have precluded detailed discussion of individual renditions, it is interesting to note the relative lack of direct correlation between versions of Segâh by musicians related as teacher and pupil, or as pupils of the same teacher. It is possible that the tradition of studying with more than one master works against clear-cut teacher-pupil relationships, encouraging "cross-fertilisation" between different versions of the repertoire.

4.7 Concluding Remarks

Various preliminary conclusions may be drawn from the analyses of this chapter. Firstly, the performances and radifs of Segâh under study shared much in terms of sectional organisation. The radifs were constructed around a core progression of central gushehs and broad modal sections, and this core was varied in performance by their rearrangement, omission, and/or restatement. Moreover, individual gushehs and modal sections were internally varied both by the inclusion of measured sections in the largely unmeasured āvâz, and by the inclusion of shorter gushehs within the modal sphere of central gushehs. The relationship of radif to performance, however, is complex. Once musicians have internalised the structures of the radif during the learning process, its role in improvised performance varies from a relatively exact model to a broad starting point from which musicians may also draw upon other sources. Thus, for example, current performance trends appeared to be an important factor, interacting with a musician’s knowledge of the radif in the performance situation.

Whilst no two versions of Segâh were identical in terms of overall sectional organisation, clear patterns did emerge, with a range of variation around an analytically abstractable core of norms. In presenting improvised performances of Segâh, musicians are engaged in an ongoing decision-making process, including the choice of which gushehs to present and in what order. Whilst there is some
degree of freedom in this choice, there appear to be certain aesthetically-rooted principles which serve to shape improvisations in certain ways and to define unspoken boundaries in terms of what is acceptable variation in the music. This chapter has attempted to identify and to explain these patterns of variation, and the following chapters will consider the musical material itself in greater detail.
5.1 Introduction

Central to any study of improvisation is the question of how the identity of musical "units" (repertoires, pieces, sections of pieces) is maintained, given the continual variation which takes place in performance. Indeed, since all performance involves some degree of creative input on the part of the musician (whether or not the music is improvised), it might be argued that the maintenance of identity is important in all music. On the one hand, there are clearly certain elements which are "essential" to the identity of a musical unit; on the other, there are the spoken or unspoken rules which define the limits of creativity beyond which the identity of the unit may be lost. This information, which musicians need in order to be able to perform, may be defined in different ways and verbalised to varying degrees according to the musical tradition. Whilst the essential elements of the music are often learnt through orally transmitted or notated pieces, it is likely that the limits to creativity are deeply embedded within the musical tradition, and assimilated and understood by musicians both through formal training and through informal listening.

For example, in the case of the western classical musician performing from a score, the minimum requirements for the piece are in the notation. However, which parameters may be varied and the degree of acceptable variation are largely defined by the oral tradition in which the musician works. These, in turn, are informed through the musician's knowledge of other performances of the work or works in a similar style. For the Persian musician, however, there is no definitive "urtext", but a range of closely related versions though which it seems likely that he comes to understand the essence of each section of repertoire. Like the western musician, the acceptable limits of variation are learnt through experiencing the music over many years. As discussed in Chapter One, there would seem to be a close correlation between the "density" of "essential" elements in a piece and the flexibility of the boundaries within which musicians may create. Generally speaking, pieces with a clear "urtext" or musical framework (notated or otherwise) allow musicians less licence for variation from one performance to
another. Thus, the Persian musician is, relatively speaking, freer in performance than the western classical musician.

The analyses of Chapter Four showed there to be a core of gushehs essential to the identity of dastgāh Segāh. This core was subject to variation in performance, but always within certain limits, and these limits appeared to be largely determined by particular structural and aesthetic criteria. The present chapter will explore the issue of identity as it relates to individual gushehs, focusing in particular on the central question of how the identity of each gusheh is established and maintained: what is it, for example, that makes mokhālef identifiable as mokhālef, and not another gusheh? What are the "essential" characteristics of this gusheh (corresponding to the abstract "core" or "framework" of the music as discussed in Chapter Two, Section 2.2.5), and what are the limits of variation beyond which the identity of mokhālef is lost?

Discussion of the characteristics of the individual gushehs of Segāh in the literature is generally very brief. Whilst Zonis (1973:88-90), During (1984a:118-119), and Farhat (1990:51-55) describe the basic modal characteristics of the main gushehs of Segāh, and musical examples are presented (at least by Zonis and Farhat), there is little consideration of essential aspects of the music other than mode. Moreover, such descriptions tend not to differentiate between aspects of the music which are perhaps characteristic of a gusheh, and those which comprise the abstract "core" and without which the identity of the gusheh is lost: between elements which are important and those which are essential. For example, the fact that whilst mode is important, some aspects of mode are more central in defining a gusheh than others, is rarely considered. Similarly, there is little discussion of the extent to which each gusheh can be varied in improvised performance. Whilst Farhat does present a "... basic melodic formula ..." (1990:52) for each of the central gushehs of Segāh (as he does for all twelve dastgāhs, see Chapter Two), these are not examples of improvisation as such, but rather represent the basic essence of each gusheh as extracted analytically from a number of different improvisations, and there is no indication of either the essential elements of the gusheh (those on which the identity of the gusheh rests) or the limits of variation for each gusheh. The tendency of writers to focus on mode is clearly indicative of a tradition in which much of the technical
terminology relates to this aspect of the music, this being one of the few areas which musicians habitually discuss (see Chapter Three). Thus, musicians with whom the author discussed gusheh identity generally stressed modal characteristics as the central defining elements of each gusheh, in addition to specific melodic phrases (and also metric/rhythmic characteristics), the latter particularly in less central gushehs such as maqlub and hodi va pahlavi. The fact that these shorter gushehs are rarely discussed in writings perhaps also serves (by their absence) to reinforce the emphasis on mode found in the literature.

Whilst there are a number of ways in which the question of gusheh identity might be approached, as in Chapter Four, this chapter focuses primarily on analysing the musical structures as a means of understanding the underlying processes. To the extent that the aural analysis of the performances and radifs in this study was greatly aided by Firooz Berenjiān (the author's main informant) and by his perceptive responses to questions regarding gusheh identity, particularly in the early stages when the author was herself learning to recognise gushehs, the perspective of the musician is integrally bound into the fabric of the analysis. However, as stated in Chapter Three (Section 3.1), whilst exploring the cognitive processes of the performer (and also the listener where distinct from the performer) and the relationship between those processes and the resulting musical practice is clearly important (though often difficult to access), the aim of the analysis is not to replicate the musician's cognitive processes (even if this were possible), but to present an inevitably interpretive understanding of the music based on the available information (see also Section 5.5).

Since the issue of musical identity is fundamental to the present discussion, it is pertinent at this point to consider the interesting double meaning of the word "identity". The Oxford Encyclopedic English Dictionary defines this word as "a. the quality or condition of being a specified person or thing. b. individuality, personality ...", but this is followed almost immediately by "the state of being the same in substance, nature, qualities, etc.; absolute sameness." (ed. Hawkins and Allen 1991:707). Despite the apparent contradiction, there is an integral relationship between these two meanings of "identity", which in the context of the present discussion point up the importance for any piece of music to establish at one and the same time its place within the repertoire at large whilst also
maintaining its own independence. Such a balance is crucial within any musical tradition.

5.2 The Construction of Identity in the Gushehs of Segāh

In order to explore the question of gusheh identity, a number of gushehs were selected for analysis, these representing a range of different types of gusheh: darəmad, mokhāləf, maqlub, hazeen, and hodi va pahlavi. In each case, a number of different versions of the gusheh (both from radifs and performances) were transcribed and compared analytically by the author, examining various aspects of the music, including modal character, overall structure, and the use of motivic and melodic material (and with a particular focus on pitch elements of the music). For each gusheh, an attempt was made to identify aspects of the music which were heard in every version of the gusheh, and which are presumably essential to the identity of the gusheh; musical features heard in many, but not all versions and which would therefore seem to be characteristic of the gusheh (but not essential); and finally, specific aspects of the music, heard only in that particular gusheh (as mentioned above, these essential features correspond to the abstract "core" or "framework" of the music as discussed in Chapter Two). It should be stressed that the terms "essential", "characteristic", and "specific" are analytical constructs which have emerged through the process of analysis and are not intended to imply conceptualisation on the part of musicians. Whilst the analytical presentation below generally follows a similar pattern for each gusheh, there is a certain flexibility (for instance, in the number of examples analysed) according to the particular nature of individual gushehs. The analyses are based on the same performances and radifs of Segāh discussed in Chapter Four.

Since the analyses of this chapter are primarily concerned with identifying overall "norms" of musical structure, specific musicians are not named at this point in the discussion (although they can be identified by referring to Appendix One). Whilst such "norms" and their individual expression can clearly only have meaning when discussed in terms of one another, in a sense, those "norms" (however hypothetical and "fluid") need to be established prior to discussion of individual variation. Thus, following on from this chapter, Chapters Six and Seven will
include discussion of the ways in which individual musicians re-create the repertoire in performance.

5.2.1 Darāmad

Analysis of the darāmad of Segāh was based upon the comparison of four different versions, taken from performances 15 and 20 and radifs 1 and 3 (these examples were chosen randomly). The transcriptions of these versions of the darāmad are presented in Examples 1-4 (Appendix Four), and the following analysis should be read with close reference to these transcriptions and the accompanying sound recordings.

The modal configuration of the darāmad as outlined in Chapter Four was maintained in all of the analysed examples, and this included the shāhed e-koron. The distinctive neutral third interval between the lower c and e-koron was heard clearly at the beginning and end of performance 15 and radif 3, and at the end of radif 1. In performance 20, this interval was only heard in the chahārmezrab section. Given the importance of this interval in Segāh, and the fact that performance 20 was by a respected musician of the older generation, one might have expected him to accord it greater significance. Generally speaking, the melodic range in use was c to b-flat (although some musicians moved beyond this, and there was also frequent movement between octaves, particularly in santur renditions), with most musical activity in the tetrachord between e-koron and a-

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121 The transcriptions presented in this and the following chapters were never used in isolation, but always as an aid to the essential aural analysis of the music. Indeed, they themselves comprised a form of analysis, and were used to clarify points through comparative study which would not have been possible in such a detailed manner through aural analysis alone. A key to the various symbols used in the musical transcriptions is given at the beginning of Appendix Four. Sound recordings of all of the examples in Appendix Four are on accompanying Cassette 1, and these examples are listed in the introductory section of the thesis.

122 Example 2 is the section of the darāmad of performance 20 played on the setar by Ahmad Ebādī. The chahārmezrab in the darāmad mode which followed this, and which was played on the violin by another musician, is not included in the analysis. Example 3 is the first darāmad section presented in radif 3, whose unusual order of gushehs has already been noted.

123 As explained in Chapter Four (Footnote 86), whilst there is no concept of standard pitch in Persian music, all of the examples from Segāh presented in this study have been transcribed with e-koron as the shāhed (of the darāmad) for ease of comparison (the examples from Māhur in Chapter Six are transcribed with (middle) c as the shāhed of the darāmad of Māhur). The actual pitch of the shāhed (of the darāmad) is indicated in brackets at the beginning of each example.
koron. Whilst all of the examples shared the same finalis (final pitch), e-koron, the āqāz (initial pitch) varied from c in performance 15 and radif 3, to e-koron in performance 20, and g in radif 1. Similarly, the ist (medial phrase ending pitch) tended to be e-koron (heard particularly in performance 15), although in performance 20 and radif 3 medial phrases occasionally ended on g (the darāmad in radif 1 was so brief that there were no medial phrase endings). Thus, as mentioned in Chapter Four, whilst some pitch functions in a gusheh are stable - usually, as in this case, the shāhed and the finalis - the ist and the āqāz can be varied, but always within certain limits.

Whilst the melodic range and function of pitches used were relatively consistent among the four versions, other shared features which might form part of the essential core of the darāmad were less easy to establish. For example, one of the most striking differences between the versions was in their widely varying lengths: from seventeen seconds in radif 1 to just over six minutes in performance 20. The radif examples were comparatively short and both consisted of one unmeasured section. The performances in contrast were rather more complex in structure, performance 15 comprising two halves in each of which the nei and santur alternated, before coming together to conclude the gusheh, and performance 20 being the only version to include a measured section - a chāhārmezrāb - which separated the two halves of the darāmad. The overall melodic contour of both performances and radifs generally formed an arch, starting in the area of e-koron, rising in pitch towards the middle of the gusheh and returning to conclude on e-koron. Interestingly, not only was this arch shape similar to that of the complete dastgāh as discussed in the previous chapter, but it was also heard within the individual sections of each performance (sections a-d in performance 15 and a-c in performance 20).\textsuperscript{124}

\textsuperscript{124} Persian classical music is paced and shaped in terms of distinct phrases, and this is partly indicative of the close relationship between music and poetry which has existed for many centuries in Iran. However, whilst musicians do sometimes use terminology such as jomlezh (lit. "sentence") to discuss general aspects of phrasing (in instrumental as well as vocal music), there is rarely any detailed discussion of gushehs in terms of phrases and sections of phrases, although there does exist the concept of fairly well-defined opening and concluding sections of gushehs. Not only is the question of identifying sections of the music for analysis problematic, therefore, but there is also the issue of terminology, terms such as "phrase" and "section" being relatively difficult to define. Whatever terminology one decides to use, however, the fact is that the music does have clear phrases and sections. In this study, therefore, individual gushehs of Segāh have been analysed using the terminology of "sections" and "phrases", and the author has used her own informed judgement together with a number of criteria in the use of this terminology and in the identification of sections and phrases of gushehs. Thus, the examples of darāmad and mokhālif have been analysed into what
A characteristic feature of Persian classical music (and one which will be discussed in greater detail in Chapter Six) is the statement of a motif or short melody at (or towards) the beginning of a phrase and its subsequent development, usually involving increased intensity and a rise in pitch to a climax and a subsequent descent, often to a medial pause. This aspect of the music has been noted by Nettl (but by surprisingly few other writers):

... the characteristically wave-like intensity curve of the music, with its short stretches of intensification and its large number of minor climaxes, a feature that sharply distinguishes the Persian non-metric improvisation from the more grandly organized Indian alap ... (with Foltin 1972:33)

This can be seen in the following phrase, which was the only specific melody to be heard in more than one of the analysed versions of the darāmad:

\[\text{(diagram of melody)}\]
This phrase was heard in both performances 15 and 20 as well as in a number of other performance versions of the daramad not analysed in this section. However, it was not heard in either of the analysed radifs, and this raises the question of the relationship between radif and performance discussed in Chapter Four, showing that performances may share material not heard in the radifs. Furthermore, this phrase is of interest since it was heard in varied form in a number of gushehs within Segāh - the same melodic material, but presented in different modes, and also subject to different types of musical development. This will be discussed further in Chapter Six.

Persian classical music is essentially motivic in nature, with characteristic motifs being combined to form extended melodies. There is a great deal of unity in the motivic "language" of Persian music, and much of the motivic material that was common to the four analysed versions of the daramad was also to be heard in other gushehs of Segāh (and also in other dastgāhs). Indeed, there were only a few motifs which might be regarded as being essential and specific to the daramad. Perhaps the most characteristic motif of the daramad was the of the daramad of performance 15 as presented in Example 1 in Appendix Four.
This distinctive motif was heard prominently at the beginning and end of the radif versions (only at the end of radif 1) and in performance 15 clearly marking the identity of the darāmad (and Segāh). The absence of this motif from the beginning and end of performance 20 was noted above. Specific to the darāmad of Segāh (although occasionally heard in the forud sections of other gushehs) and essential to the extent that it was heard in all four analysed versions, this motif played a particularly important defining role at the beginning and end of the gusheh (and this is substantiated by examining the other twenty-six versions of Segāh under study).

The following motif was also heard in all four versions (sometimes in slightly varied form), particularly at the ends of phrases (most notably in performance 15), both at medial phrase endings and also at the end of both performances:

Motifs which were heard in the analysed versions of darāmad, but which appeared to be generally characteristic of Persian classical music (being found in other

127 Whilst individual motifs found in particular gushehs will be considered briefly in the course of this chapter, the motivic structure of Segāh, and in particular that of gusheh zābol, will be discussed in more detail in Chapter Seven.

128 The extent to which any sample of performances is "representative" of the performing tradition is an issue which was mentioned in Chapter Four (Footnote 93). On one occasion, discussing a detail within a performance, and perhaps slightly mystified by my interest in such detailed aspects of the music, Berenjīān concluded by saying that "...yes, this is true, but the musician might play the gusheh very differently on another occasion". Whilst analysis shows that there are in fact clear patterns, true to Berenjīān's statement, the darāmad of performance 4 (played by the same musician as performance 20 - Ahmad Ebādī) begins with a prominent c to e-koron motif which was not heard in performance 20.
The first was heard regularly in performance 15 and also at the beginning of performance 20, whilst the second was heard in performance 20 at various pitch levels (particularly from g moving down to e-koron), as well as in both radifs 1 and 3.

What emerged from the analysis of the darâmad was that the identity of this gusheh, so important to the integrity of the dastgâh as a whole, seemed to depend largely on its modal characteristics. Moreover, the constituent elements of the modal configuration played varying roles in this. Thus, aspects of mode which were shared by all of the examples were the specific pitches used, the overall melodic range and main area of melodic activity, and e-koron as shâhed and finalis, without which the identity of the darâmad would be in question. Less consistent were the āqāz (starting) pitches, the 1st (medial phrase endings), and the characteristic motif incorporating the neutral third interval between the lower c and the shâhed e-koron.

Other aspects of the music were, to varying degrees, also important in terms of gusheh identity. For example, its positioning at the beginning of the dastgâh was significant, but not sufficient by itself to define the darâmad (see Chapter Four, performance 12). In terms of specific melodic material, there was little in common between the examples, with the exception of one phrase heard in both analysed performances, and a number of shared motifs which however, tended to

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129 A methodological issue which emerged in the course of this analysis should be mentioned. Each gusheh comprises a highly integrated complex, such that identifying motivic patterns as characteristic of a particular gusheh was problematical, because the extent to which such motifs were also characteristic of particular performers, performances, or instruments, or even of Segâh or Persian music in general, was often uncertain. Whilst this analysis does attempt to identify such motifs (for example, those which appear to be characteristic of certain instruments or of Persian music as a whole), definitive verification of many of these would necessitate an extensive comparative sample, potentially involving analysis of hundreds of performances, something which was outside the scope of this study. Moreover, whilst a motivic pattern may be shared by two gushehs or two performers, it may be more characteristic of one than the other. Similarly, a motif might be characteristic of both a gusheh and a performer, but more characteristic of one than the other.
be characteristic either of Segah or of Persian classical music in general. The arch contour of the gusheh and its constituent sections were also characteristic of the dastgah (see Chapter Four). Indeed it seems appropriate that the darâmad, which is generally considered to be the most representative gusheh of Segah, should include a number of musical elements characteristic of the dastgah as a whole. There were few correlations in the lengths and overall structuring of the examples, suggesting that these were determined largely by individual performers and performing situations. Another point of interest, although less apparent than in other gushehs, was the stereotyped nature of the beginnings and ends of the examples in comparison with the central sections, both in terms of specific motifs and the emphasis of the lower pitches of the darâmad mode (see Section 4.5.1 for a discussion of this as a structuring principle in the dastgah as a whole). Finally, it should be noted that the analysis of the darâmad showed that it is not always easy to ascertain whether individual musical patterns are characteristic of a particular gusheh, of the dastgah as a whole, or even of particular musicians or instruments (see Footnote 129).

5.2.2 Mokhâlef

Examples of the gusheh mokhâlef were taken from performances 10 and 17, and radifs 1 and 2, and the reader is again referred to the accompanying transcriptions (Examples 5-8 in Appendix Four) and sound recordings as an integral part of the following analysis. Like the darâmad examples, all of the analysed versions of mokhâlef followed the modal configuration described in Chapter Four in terms of the pitches used and the shãhed of c. The melodic range was from f (e-koron in performance 17) to e-flat (d in radif 2 and f in performance 10) (although again, musicians moved from one octave to another), but with most melodic activity between g and d. The finalis note was g in performance 10 and radif 2, e-koron in performance 17, and c in radif 1. Unlike the shãhed, then, which must remain stable, the finalis of a gusheh can sometimes be varied, but always within certain understood limits. Medial phrases generally ended on g, but also occasionally on c or a-koron (the latter particularly in radif 1). There was less diversity in terms of lengths in comparison with the darâmad examples, ranging from seventy-five seconds in radif 2 to just over three minutes in performance 10.
(the almost identical length of the two performance versions would seem to be coincidental).

The openings of all of the examples were similar, serving to establish the mode of mokhalef, the first central gusheh in Segah to present a significant departure from the pitches of the darâmad mode. An emphasis of c (preceded by a leap from g to c in performance 17 and radif 2, both being vocal renditions, and a scalar ascent on the santur in performance 17) was followed by a descending movement, before the music ascended to stress c again (see Section 5.3.3 for a detailed analysis of the opening phrase of mokhalef). Interestingly, whilst mokhalef began in the lower octave in both performances 10 and 17, before proceeding at the usual pitch (a sixth above the e-koron shâhed of the darâmad), this was not heard in either of the radifs. In fact, mokhalef began in the lower octave in only four of the other twenty-six versions of Segah under study: performances 4, 25, and 26, and radif 4. It was interesting that performances 25 and 26 were played by Borumand, in spite of the fact that in his own radif, mokhalef began at the usual pitch (although it should be noted that the final section of radif 1 - reng-e delgosha - included a section in the mokhalef mode in the lower octave). It is unclear why mokhalef should begin an octave lower in some performances, and it was the only gusheh in which this happened. One possible explanation is that, given that mokhalef is the next most important gusheh after the darâmad, starting unexpectedly at the lower octave marks the gusheh out for special attention. Moreover, in the five performances in which this occurred, the move to the upper register when it came involved an octave leap which further served to focus the attention of the listener.

Following the relatively standard openings, the examples diversified, although there was a greater unity of melodic material than was the case for the darâmad. The radif examples were shorter than the performances (although the difference in lengths was not as great as for the darâmad), and did not include any measured material. The sectional organisation of performances, as with the darâmad examples, did not appear to follow particular patterns. In performance 17, the voice was accompanied by the santur, which replied to its phrases by varying the same basic material. None of the examples had a measured section, but performance 10 included a brief section based on material from the gusheh
masnavi, which merged back into the material of mokhâlef. In this performance, the first two main sections (a and b, section a in the lower octave) began with an emphasis of the shâhed, c, and in each case the basic material was developed in different ways, building up intensity before reaching a medial pause. Section c was based on the gusheh masnavi (again in the lower octave), and the subsequent development of this material interestingly blended the motifs of sections a and b,

Performance 10 - I(5)-II(1)

compare with: I(2)

and I(4)

Section d began the downward movement to the forud of mokhâlef, with a development similar to that of section b. The final section (e) consolidated the descent and reached a final pause on g.130

Performance 17 also comprised five main sections, but the organisation differed from that of performance 10. The basic material of mokhâlef was presented by

130 Whilst the analyses of this chapter are concerned with identifying common elements between the different versions of mokhâlef, Chapter Six (Section 6.6) includes a detailed analysis of mokhâlef in radif 1 and performance 10, focusing on the use of various types of compositional techniques in the music, and in particular, the ways in which such techniques may be used to "recreate" mokhâlef in performance.
the voice in section a, but was not developed further in this section. The santur answered the voice in section b, developing the material in a manner comparable with that heard in sections b and d of performance 10. The voice resumed in section c, leading to a melismatic tahrir also heard in performance 10 and radif 2 (and presented comparatively in Example 9b). Section d (santur) began in a similar way to section c, but the material was subsequently developed differently. The final section (e) in the voice led through a sequential descent to forud on e-koron.

The five sections (or extended phrases) of radif 1 shared little in terms of specific musical material with either of the performances or with radif 2. The latter was much closer to the performances, sharing with them both a number of motifs and also the melismatic tahrir passage heard in its third and final section (see Example 9b).

The contours of individual sections were as follows:

Performance 10:

Performance 17:

Radif 1:

Radif 2:

Many (although not all) of the sections were arch shaped, as was the overall shape of performance 17 and radif 2. The undulating contour of performance 10 and radif 1 was also somewhat characteristic, and will be seen in some of the melodic material presented below.

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131 Tahrir is the name of a vocal technique (which is also imitated by instrumentalists) which is used to embellish melodic passages. It may take the form of an embellishment of a single note or a short series of (often) repeated pitches (usually involving an upward movement to the adjacent pitch), or an extended vocal melisma, which is most likely to occur at a climactic point towards the end of a phrase. For further information on tahrir, the reader is referred to Caron and Safaye 1966:159-164, Sâdeghi 1971:87, Tauge 1974:171-4, Lotfi 1976:18-20, Ayako 1980, During 1984a:84-86, and Alizâdeh 1992.

132 In cases where a performance includes more than one musician, it may be necessary to specify the instrument or musician being discussed at any one point. In other cases, the reader is referred to Appendix One for details of musicians and their instruments.
All of the mokhālef examples demonstrated the development of phrases from basic motifs, with the characteristic heightening of intensity, and subsequent release at the ends of phrases, such as in the following:

![Image of musical notation]

Performance 10 - II(2-3)

Examples 9a and 9b present melodic material which was shared between Examples 5, 6, and 8. Example 9a compares the undulating phrase presented above with phrases in performance 17 (I(3-4) and I(3-5)), whilst Example 9b compares the tahrir passage heard in performances 10 (I(3-5) and I(3-5)) and 17 (I(5-5) and radif 2 (I(3)). Both of the phrases in Example 9 appeared to be characteristic of mokhālef (and were heard in a number of other performances in the sample under study), but neither was essential, both being absent from radif 1 without affecting the integrity of the gusheh (the passage in Example 9b was heard in radif 3, see Section 5.3.3).

The following motivic pattern was heard at the beginning of both of the analysed radifs, but in neither of the performances (although the pattern was heard in performance 17 in the opening of mayeh, see Section 5.3.2; and in other performance versions of the opening of mokhālef analysed in Section 5.3.3):

![Image of musical notation]

Radif 1 - I(1)
A number of motifs, such as the following, were heard in more than one of the analysed versions of mokhâlef:

Whilst the above motivic patterns can also be heard in other gushehs (and dastgâhs), and are therefore not specific to mokhâlef, from their regularity of appearance, they would seem to be particularly characteristic of mokhâlef. The following two motifs were noted above in the analysis of the darâmad and are thus possibly characteristic of Segâh or of Persian classical music generally. The first was only heard in performance 17, at two points - I(3) on santur and II(5) on voice:

The second was heard in performances 10 (II(3)) and 17 (I(4)):
A further motif was only heard in performance 17, and may be characteristic of the playing of Pāyvar and perhaps of other santur players:

\[ \text{\textit{Mokhālef}} \]

\[ \text{\textit{Mokhālef}} \text{ was followed by } \textit{maqlub} \text{ in } \textit{radif} 2 \text{ and by } \textit{hāji hassani} \text{ (another gusheh within the modal area of } \textit{mokhālef}) \text{ in } \textit{radif} 1. \text{ However, in both of the analysed performances it was followed by the } \textit{gusheh shekasteh muyeh} \text{ (neither } \textit{maqlub} \text{ nor } \textit{hāji hassani} \text{ being heard in performances 10 or 17).}

Like the \textit{darāmad} of \textit{Segāh}, \textit{mokhālef} seemed to be largely defined by its modal structure, in particular the pitches used, the main area of melodic focus, and the \textit{shāhed} (c). Its usual position after \textit{muyeh}, whilst an important defining element was, as with the \textit{darāmad}, not sufficient by itself (see Chapter Four). However, in comparison with the \textit{darāmad}, the analysed examples of \textit{mokhālef} held more in common with each other, including a more closely defined opening section and a greater use of shared material between the examples. Thus, there was a core of motifs and melodic phrases which appeared to be characteristic of and occasionally specific to (although not necessarily essential for) \textit{mokhālef}. However, it was interesting that, besides the essential modal elements, there was little shared material between the performances and \textit{radif} 1, there being closer parallels in the melodic material of the performances and the vocal \textit{radif} (\textit{radif} 2).

\textbf{5.2.3 Maqlub}

Analysis of the \textit{gusheh maqlub} was based on performances 1 (two versions from different points in this performance), 16, and 18, and \textit{radifs} 2 and 3 (Examples 10-14 in Appendix Four). These versions were selected in order to provide particular points of comparison: three were played on the \textit{santur} and three were vocal; and two were by the same performer (performance 1). As will be seen, there was enough shared musical material in the examples analysed for the
transcriptions to be presented synchronically (Example 15), thus allowing detailed comparison of different versions of *maqlub* in a way which was not possible for either *darāmad* or *mokhālef*.

The modal character of *maqlub* and its importance as a climactic point in *Segāh* were discussed in Chapter Four. *Maqlub* is always heard in the context of *mokhālef* and indeed uses the same pitches as *mokhālef*, but with greater emphasis on the higher range around the upper e-flat. The examples analysed all used the same pitches with a melodic range of b-koron (a-koron in performance 1 - both examples) up to g (the highest point reached in the whole *dastgāh*), with most activity between c and f. All of the examples began and ended on c, and c was also the *shāhed*. The relative lengths of versions was less varied than for the *darāmad* or *mokhālef*, ranging from sixteen seconds in performance 1(2) to forty seconds in *radif* 2. In contrast with the analyses of *darāmad* and *mokhālef*, the *radif* examples of *maqlub* were longer than the performance versions, and this may be a factor of the greater importance of *maqlub* in *radifs* relative to performances (as discussed in Chapter Four).

Analysis and comparison of the six examples of *maqlub* suggested that the structure of this *gusheh* comprised three main phrases, each of which can be subdivided in the following way (see Example 15):

**Phrase A** Section 1: emphasis of c, through its repetition, and oscillation between c and b-koron (no oscillation in performance 16), using patterns such as the following:

![Characteristics of renditions](image)

Characteristic of
*santur* renditions

Characteristic of
*vocal* renditions

---

133 Since the analysed examples of *maqlub* and *hazeen* (and also *hodi va pahlavi*) shared more in terms of musical material than the examples of *darāmad* or *mokhālef* considered above, it was possible to suggest a more detailed analysis of the music in terms of defining phrases and sections of phrases (see Footnote 124). However, it should be noted that *maqlub* is itself effectively no more than a single extended phrase, which has been divided into shorter phrases and sections here by the author for the purpose of analysis (the same applies to *hazeen*).
Section 2: movement up to e-flat (by way of f in 2 of the 3 santur performances), this pitch being held and emphasised.

Section 3: movement down to c again (omitted in performance 1(2)).

Sections 1, 2, and 3 were repeated in performance 16 (1\textsuperscript{b}, 2\textsuperscript{b}, 3\textsuperscript{b}), although 2\textsuperscript{b} was closer to section 2 in performance 18. Phrase A concluded with a contraction of sections 1 and 3 in performance 1(1) (1\textsuperscript{c} and 3\textsuperscript{c}).

Phrase B Section 4: scalar\textsuperscript{134} passages between b-koron and f in performances 1(1) and 18, and radif 3 (compare with the examples of hazeen in Section 5.2.4 below) two of these being santur renditions (note that the vocal rendition - performance 1(1) - does not extend to f, although the tār accompaniment does):

\begin{center}
\begin{figure}
\centering
\includegraphics[width=0.5\textwidth]{radif3}
\caption{Radif 3 Performance 18 Performance 1(1)}
\end{figure}
\end{center}

The shape of section 4 might be regarded as a contraction of the overall shape of phrase A.

Section 5: formed from the second half of section 4, and heard in performances 16 and 18 (again compare with the examples of hazeen), both of which were santur renditions.\textsuperscript{135}

\begin{center}
\begin{figure}
\centering
\includegraphics[width=0.2\textwidth]{hazeen}
\caption{Hazeen}
\end{figure}
\end{center}

\textsuperscript{134} Since much of the melodic movement in Persian music is by undulating step, melodies which proceed in the same direction for more than three notes are particularly noticeable. In this study, "scalar movement" indicates melodies which move rapidly by step for more than three notes in the same direction, although this rarely extends to the long scalar passages commonly heard in Indian classical music.

\textsuperscript{135} Not only is the pattern embodied in Phrase B closely related to that heard in hazeen, but it was also found in a number of other gushehs, including pas hesār and hożān in radif 4 (the latter gusheh following hazeen; see Footnote 103, Chapter Four) and also at the end of mokhālēf in one of the published radifs of Sabā (radif 5). This pattern seems to function in the manner of a forud motif, and further examples will be discussed briefly in Chapter Six, Section 6.4.
**Phrase C** Section 6: movement between the upper d and f (starting on c in *radifs* 2 and 3; this section was heard very briefly in performance 18 and *radif* 3 (6b)), and leading up to

Section 7: climax on g, representing the *owj* of the *gusheh* (and indeed the whole *dastgâh*), followed by resolution in the form of a descending sequence from g to c (in both of the examples from performance 1, Phrase C was in the form of a *tahrîr*).

Section 8: re-emphasis of c to conclude the *gusheh*.

The above sectional analysis can be represented diagrammatically as follows:

<table>
<thead>
<tr>
<th>Performance (length)</th>
<th>Phrase A</th>
<th>Phrase B</th>
<th>Phrase C</th>
</tr>
</thead>
<tbody>
<tr>
<td>1(1) (0'32&quot;)</td>
<td>1 2 3 1c</td>
<td>3c</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 7 8</td>
</tr>
<tr>
<td>1(2) (0'16&quot;)</td>
<td>1 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 7 8</td>
</tr>
<tr>
<td>16 (0'28&quot;)</td>
<td>1 2 3 1b</td>
<td>2b 3b</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 7 8</td>
</tr>
<tr>
<td>18 (0'37&quot;)</td>
<td>1 2 3</td>
<td>4 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6b 7 8</td>
</tr>
<tr>
<td><em>Radif</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 (0'39&quot;)</td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6b 7 8</td>
</tr>
<tr>
<td>3 (0'40&quot;)</td>
<td>1 2 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6 7 8</td>
</tr>
</tbody>
</table>

*Figure 10 - Sectional Analysis of *Maqlub*

Using the criteria of regularity of appearance, it is possible to suggest a basic minimum core of sections essential to the identity of *maqlub*, comprising those which were heard in all of the versions: 1, 2, 6, 7, and 8:
Among the various sections of *maqlub*, it appeared to be phrases A and C which played the most important role in defining the *gusheh*. More specifically, within phrase A, it was the distinctive high point of the emphasised upper e-flat in section 2 which distinguished *maqlub* from the surrounding material in the *mokhālef* mode. Figure 10 and Example 15 show clearly that in *maqlub*, as in the *darāmad* and *mokhālef* (but to an even greater degree), there was less variation between different versions at the beginning and end of the *gusheh* in comparison with the central section. This aspect of the music will be discussed further below.

The arched phrase contour heard both in the *darāmad* and *mokhālef* and generally characteristic of Persian classical music, was also found in *maqlub*, both within individual phrases and also in the *gusheh* as a whole. The overall shapes of phrases and sections can be summarised as follows:

The structure of *maqlub* was essentially an extended phrase in which tension was built up - in the *santur* renditions (*radif* 3 and performances 16 and 18) this took place in phrase B, and in the vocal renditions (*radif* 2 and performances 1(1) and 1(2), very briefly in the latter) this took place in section 6 of phrase C - the music rising to a higher pitch level in each successive phrase, and the tension being
subsequently released in the climax on the upper g in section 7, and the following
descent to finish on c.

As regards the motifs heard in the analysed versions of maqlub, whilst some were
found in other analysed gushehs:

Performance 1(2) - I(1)  Performance 18 - I(2)  Performance 1(1) - I(1)

others appeared to be more characteristic of maqlub:

Performance 18 - I(2); Radif 2 - I(1)  Performance 1(2) - I(1); Radif 2 - I(1)

It is interesting that phrase B was played mainly in versions on the santur, given
that the scalar patterns which constituted this phrase are ergonomically better
suited to the santur than to any of the other instruments of Persian classical music
(or the voice):

Performance 18 - I(1)

Performance 16 - I(2)

In contrast, the following motifs and combinations of motifs heard in phrase C
were characteristic of the vocal renditions:
Whilst mode was an important defining feature of *maqlub*, as it was for the *darâmâd* and *mokhâlef*, specific melodic material played a much greater role in the identity of this *gusheh*. The essence of *maqlub* was more closely prescribed than that of the *darâmâd* or *mokhâlef*, the essential core being embodied both in the mode, in the overall structure, and in the distinctive melody of *maqlub* (particularly that of phrase A), which clearly marked this *gusheh* as separate from *mokhâlef*, in the context of which it is usually heard. The different versions shared a great deal, and indeed it was this very density of common material between versions which allowed the relatively detailed comparison of the different renditions in this section.
5.2.4 *Hazeen*

As discussed in Chapter Four, *hazeen* has no modal identity of its own, and can be found in a number of *dastgāhs*, where it is characterised in particular by the distinctive shape of the melodic line. In *Segāh*, *hazeen* is found in the modal area of *mokhālef*, and is usually heard towards the end of the *mokhālef* modal section, marking the beginning of the descent to the modal area of the *darāmad* (and may in fact end in the *darāmad* mode, see Footnote 106, Chapter Four). Examples of *hazeen* for the analysis of this section were taken from performances 15, 16, and 9, and *radifs* 1 and 3 (Examples 16-20 in Appendix Four) and these are presented comparatively in Example 21. Three of the examples were played on santur (solo), two on nei and santur (both from performance 15), and there was also a version played on the tār (radif 1). The pitches used in all of the renditions were those heard in *mokhālef*, but with a slightly wider melodic range: from the lower d (performance 16 and *radif* 1), e-koron (performance 15(2) and *radif* 3), f (performance 9), or g (performance 15(1)), up to the higher d in all of the versions except *radif* 3 (e-koron). Most of the melodic activity was within the range of g to c in phrases A and B, but descended lower in phrase C.

A number of similarities between *hazeen* and *maqlub* became apparent in the course of the analysis. Like *maqlub*, *hazeen* is a relatively short *gusheh*: the examples varied in length from eighteen seconds in performance 9 to forty-one seconds in *radif* 3, a similar range to *maqlub*. In addition, as in the case of the analyses of *maqlub* (but unlike the *darāmad* and *mokhālef*), the longest examples of *hazeen* were from the *radif* versions analysed rather than from the performances. Moreover, the analysis suggested that *hazeen* was also built around three main phrases (see Footnote 133 and Example 21):

**Phrase A**  Section 1: an emphasis of c, moving up generally from b-koron (but from g in performance 9, a-koron in performance 15(1), and already on c in *radif* 1). The repeated c and the following descending movement,

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136 Figure 9 in Chapter Four details the occurrence of *hazeen* in all twelve *dastgāhs* in *radifs* 2 and 4.
Performance 15(1) - I(1)  Radif 3 - I(1)  Performance 9 - I(1)

seemed to subtly underscore the descending trend of musical movement at this point in the dastgāh. Section 1 was repeated in the performance (but not in the radif) versions, being played twice in performances 9 and 16, and four times in both examples from performance 15 (twice on santur and twice on nei).

Section 2: similar to section 1, but leading to an upward transposition. This section was only heard in the radifs.

Section 3: also similar to section 1, but leading to a downward transposition. This section was only heard in performance 15(2), in which it formed the final section of hazeen, and also in radif 3. Section 3* in radif 1 was a variation on section 3.

Phrase B  Section 4: a movement from g up to c and down to g again. This section was heard in the two radifs and performance 16 (two of these on santur), and the motif was played twice in each case. Section 4* in performance 9 was a variation on section 4.

Section 5: constructed from the second half of section 4, and heard in two of the performances and both radifs (the motif was heard four times in performances 15(1) and 16 and twice in the radifs).

Sections 4 and 5 were comparable with the same numbered sections in maqlub, and as in maqlub there was an interesting correlation between the musical patterns and the use of the santur:

Radif 1 - I(1-2)
As in some of the examples of maglub discussed earlier, the motivic pattern heard in section 4 of hazeen, and in particular the repetition of its second half in section 5, served to build up tension towards the climax of the gusheh, and also to signal the approaching end of the gusheh.

**Phrase C** Section 6: comprised a movement down from c (touching on d) to end on g in performance 15(1), a-koron in performance 9, and e-koron in performance 16 and radifs 1 and 3, the latter three thus returning to the daramad mode. This was the final section of hazeen in all but two versions.

Section 7: a short postlude in radif 1 (in the daramad mode), using familiar motifs, moving from e-koron up to b-koron and down to forud on e-koron.

The sectional organisation of the analysed versions of hazeen is shown in Figure 12 overleaf.
<table>
<thead>
<tr>
<th>Performance (length)</th>
<th>Phrase A</th>
<th>Phrase B</th>
<th>Phrase C</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 (0'18&quot;)</td>
<td>1²</td>
<td>4ᵃ</td>
<td>6ᵃ</td>
</tr>
<tr>
<td>15(1) (0'23&quot;)</td>
<td>1ᵃ</td>
<td>5²</td>
<td>6ᵃ</td>
</tr>
<tr>
<td>15(2) (0'30&quot;)</td>
<td>1ᵃ</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>16 (0'29&quot;)</td>
<td>1²</td>
<td>4</td>
<td>5²</td>
</tr>
<tr>
<td>Radif 3 (0'41&quot;)</td>
<td>1  2  3</td>
<td>4  5</td>
<td>6</td>
</tr>
<tr>
<td>1 (0'28&quot;)</td>
<td>1  2  3</td>
<td>4  5</td>
<td>6  7</td>
</tr>
</tbody>
</table>

**Figure 12 - Sectional Analysis of Hazeen**

*Radifs* 1 and 3 were very similar in terms of sectional organisation, seeming to form an independent core from which sections may be selected accordingly in performance.

As with *maqlub*, the sections of *hazeen* can be positioned according to regularity of appearance:
Whilst section 1 was heard in all six versions and section 6 in five, section 7 was only heard in one version. Section 1 was the most characteristic part of hazeen, setting it off clearly from preceding material in the mokhalef mode. Moreover, since sections 2 and 3 of phrase A were simply variations on section 1, it might be suggested that phrase A served to define hazeen as a gusheh. It can be seen that, as in the other analysed gushehs, the beginnings and ends of hazeen were the most pre-determined sections of the gusheh.

The contours of individual phrases were as follows:

![Musical notation]

The majority of phrases and sections within phrases formed an arch shape or a descending contour in accordance with the positioning of hazeen within Segāh.

A number of motifs played an important role in hazeen, such as the following from phrase A, which were heard in three of the analysed renditions, and varied in a fourth:
The following pattern, also heard in phrase A, was found in all of the versions in one form or another with the exception of radif 1:

Other motifs generally characteristic of Segāh were as follows:

Like maqlub, the structure of hazeen was well-defined, with less variation from one version to another than was the case for the longer gushehs. Given that hazeen shares the mode of mokhālef, its definition seemed to depend not only on
its modal characteristics, but also on aspects of the music such as the opening phrase (particularly section 1) and the overall shape of the gusheh, moving from c - the shāhed of mokhālef - down to e-koron (g/a-koron in performances 9 and 15(1)) - the shāhed of the darāmad - and both of these appeared to be essential to its identity. Whilst phrases B and C were also important, being heard in the majority of versions, they were not essential since both were omitted from performance 15(2) without the identity of the gusheh being lost. The position of hazeen at the end of mokhālef, and its specific use of the lower part of the mokhālef mode, also seemed to be an important defining feature of this gusheh.

5.2.5 Hodi va Pahlavi

Analysis of the gusheh hodi va pahlavi was based on performances 1 (voice and tār), 2 (tār), and 6 (santur), and radif 2 (Examples 22-25 in Appendix Four), and these are presented comparatively in Example 26. The fact that the vocal radif (radif 2) was the only radif under study which included hodi va pahlavi reflects the close association of this gusheh with poetry, and hence vocal music. And yet, interestingly, among the six performances from the total body of Segāh analysed which included this gusheh (performances 1, 2, 4, 6, 15, and 23), only one was a vocal rendition (performance 1). With the exception of performance 2 (which substantially abbreviated the gusheh), the other three analysed versions of hodi va pahlavi were fairly similar in length, ranging from just over one minute in performance 6 to one and a half minutes in radif 2 (the single radif version thus being the longest, as with maqlub and hazeen).

The distinctive rhythm of hodi va pahlavi, which forms part of the essential core of the gusheh, is based on a poetic metre of the same name. This rhythm has no regular "beat":

![Rhythm Example]

There are two main ideas in this gusheh: hodi and pahlavi, which whilst they are
recognised as being independent entities, have in the course of time become closely associated with one another and always appear together in Segāh, such that they essentially form two sections of the same gusheh.\footnote{Hodi and pahlavi are listed as two separate gushehs by Farhat for dastgāh Chahārgāh, but are not listed at all in Segāh (1990:61-62. The special relationship between Segāh and Chahārgāh has already been noted). However, Farhat does state that they are always performed together and are followed by the gusheh rajaz (a gusheh which was heard in two of the performances of Segāh analysed in this study, in both cases following on from hodi va pahlavi, but not heard in any of the radifs of Segāh). Berenjīān maintained that hodi va pahlavi is one gusheh, and indeed in the body of Segāh analysed in the present study, hodi va pahlavi generally appeared as one unit, and was announced (and listed) as such in radif 2 (the only radif of Segāh in which it appeared). There was one exception to this in which hodi was heard on its own. Performance 2 was a recording of a concert (attended by the author) of which the programme notes, including the list of gushehs to be played, were available. Clearly, programme notes written prior to a concert may be contradicted by the reality of the performance event, and it may have been that Alizādeh decided momentarily to play this gusheh. In any case, the programme notes do not mention this brief, but unmistakable reference to hodi towards the end of the performance. In analysing performance 2 aurally, Berenjīān called this gusheh hodi va pahlavi, despite its abbreviated form. Thus, the two parts of the gusheh appear to have become so inseparable that even when only the musical material of hodi is presented, the gusheh may still be referred to as hodi va pahlavi. Hodi, pahlavi, and rajaz all appear in dastgāh Chahārgāh in the radifs of Borumand, Karimi, Ma'rufi, and the Roshanravan compilation. In Karimi's radif, hodi and pahlavi are listed as one gusheh (as in Segāh), and are followed by rajaz. In the other radifs, they are listed in the same order, but as three separate gushehs.} Hodi is based in the modal area of the darāmad, and all of the examples analysed began and ended on e-koron and used the same melodic range as the darāmad - c to b-flat (performance 2 only rising to a-koron) but with a less restricted use of that range. The pahlavi section is based around the upper c in the mokhālef mode, and again, all of the examples analysed used the mokhālef mode (this section was omitted in performance 2), but emphasising the lower part of this mode. Hodi va pahlavi is also sometimes extended with an eshāreh to maqlub after pahlavi, and this was heard in radif 2.

Comparative analysis of the four versions of hodi va pahlavi suggested that this gusheh is structured as follows (see Example 26):

**Phrase A - Hodi:** sections 1 and 2 comprised a distinctive melody. Section 1 opened with the following motif,

\footnotetext{258}
Section 2: answered the first section by moving down from b-flat/a-koron to e-koron again, using a variety of motifs,

and ending with either the motif above or with another motif distinctive of the darāmad mode:

Sections 1 and 2 were heard in all four examples of hodi va pahlavi and were repeated in slightly varied form (repeated twice in performance 6). It is thus possible to regard phrase A as comprising the minimum requirements for this gusheh. In particular, the first three rising notes of phrase A with its distinctive rhythm were important in establishing the identity of the gusheh.

Phrase B - Pahlavi: pahlavi shared the same characteristic rhythm with which hodi began, but in the modal area of mokhālef (the rhythm was varied slightly in performance 6):

Also like hodi, pahlavi comprised two sections, 3 and 4, of which the first established and emphasised c, making much use of the following motif:
Whilst section 3 began on c in both performances, in radif 2 it began with a leap from g to c. Interestingly, this paralleled the opening of mokhâlef (see Section 5.2.2 above) in which radif 2 and performance 17 (both vocal renditions) began in this way.

It should also be noted that radif 2 and performance 1 (in the târ part) both included a very brief eshâreh to the gusheh hesâr in section 3.

Section 4 effected a descent to g again, after a climax on d.

**Phrase C:** This phrase formed the descent to the modal area of the darâmad and comprised three short sections. Section 5 began on g, rose to c and descended to f. Section 6 (heard only in performance 1) ended like section 1 (from phrase A) and led to a repetition of section 2 (heard in all of the versions except performance 2), which concluded the gusheh in performances 1 and 6 (the former on the repeat).

Phrases B and C were repeated in varied form in performance 1, as the târ answered the voice, but section 6 was omitted on the repeat.

Phrases A, B, and C formed the basic structure of hodi va pahlavi in two of the analysed versions. In performance 2, only the first phrase was stated, whilst in radif 2 the correspondence with the overall structure of Segâh was extended, with the music proceeding to the area of maqlub in an extra phrase. Phrase D followed the musical structure and material of maqlub closely, with sections 7, 8, 9, and 10 comparable with sections 1, 2, 3, 5, and 7 of maqlub (see Section 5.2.3), but with a descent to g at the end of section 10. It is interesting that whilst many of the features of phrase D were characteristic of maqlub as a whole, they were not heard in maqlub in radif 2 itself, but in other versions, indicating the complexity of the relationship between radif and performance across different gushehs. Phrase D was followed by a varied repeat of phrase C in radif 2, re-establishing the identity of hodi after the section in maqlub, and bringing the gusheh to a conclusion.

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138 With an emphasis of b-koron and the neutral second interval between b-koron and a-natural.
The above sectional analysis of *hodi va pahlavi* is presented in Figure 14:

<table>
<thead>
<tr>
<th>Performance Phrase A Phrase B Phrase C (forud)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(length)</td>
</tr>
<tr>
<td>1 (1'28&quot;)</td>
</tr>
<tr>
<td>2 (0'15&quot;)</td>
</tr>
<tr>
<td>6 (1'8&quot;)</td>
</tr>
</tbody>
</table>

**Radif**

<table>
<thead>
<tr>
<th>Phrases D (forud) Phrase C (forud)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
</tr>
<tr>
<td>1 (1'31&quot;)</td>
</tr>
</tbody>
</table>

**Figure 14 - Sectional Analysis of Hodi va Pahlavi**

Whilst there was less variation in the actual musical material of *hodi va pahlavi* in comparison with *maqlub* and *hazeen*, the inclusion and ordering of sections was somewhat more varied. Thus, phrase A was heard in all four versions, phrases B and C in three versions, and phrase D in only one. This suggests a rather different core to that found in *maqlub* and *hazeen*, with essential material being heard at the beginning of the *gusheh* and subsequent material becoming progressively less essential:

<table>
<thead>
<tr>
<th>sections</th>
<th>heard in</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 and 2</td>
<td>all versions</td>
</tr>
<tr>
<td>3, 4, and 5</td>
<td>3 versions</td>
</tr>
<tr>
<td>6, 7, 8, 9, and 10</td>
<td>1 version</td>
</tr>
</tbody>
</table>

**Figure 15 - The Constituent Sections of Hodi va Pahlavi**

Indicating Regularity of Appearance

Despite the apparent decrease in shared musical material between the versions as they progressed, unity was maintained by sections 1 and 2 (section 1 also in the
varied form of section 6), which appeared to form the essential core of this *gusheh*. In particular, the rhythm of section 1 pervaded the whole *gusheh*, and section 2 formed the concluding phrase in all four analysed versions, playing an important unifying role in the *gusheh*.

The contours of phrases followed the general pattern of arching, undulation, and descent found in other *gushehs*:

![Musical notation diagram]

The most characteristic motifs of *hodi va pahlavi* were the opening three notes (an essential feature of the opening phrase) and the following descent motifs:

![Musical notation diagram]

The opening motif of *pahlavi* (phrase B) was also distinctive, using the same rhythm as the opening of phrase A. Another common motif in this *gusheh* was that heard in sections 5 and 6:

![Musical notation diagram]

A number of motifs in the examples analysed were not specific to *hodi va pahlavi*, but were among those heard in other *gushehs*:

![Musical notation diagram]

Performance 6 - I(1)  I(3)  Radif’2-I(1-2)  Performance 1-I(1)

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Of the five gushehs of Segāh analysed in this chapter, hodi va pahlavi was the most highly defined, the analysed examples including a significant amount of shared material, with much less variation from one version to another than in the darāmad or mokhālef. When Berenjiān was asked why some gushehs seemed to be improvised to a lesser extent than others, with specific reference to hodi va pahlavi, he explained: "... because it is very beautiful (zibā) and complete (kāmel) ... you can’t really bring yourself to change it (ādam delesh nemiyād een rā avaz bokoneh)" (Interview 18.9.90). Meshkātiān expressed this in the following terms: "hodi va pahlavi is a melody, whilst darāmad is a mode ... for example, if we think of the darāmad as a garden, then hodi va pahlavi is a tree in that garden." (Interview 20.7.92).

Whilst hodi va pahlavi functioned almost as a fixed pre-composed piece, however, there was some variation in the inclusion and ordering of sections. The overall modal structure of hodi va pahlavi essentially encapsulated the progression of important points within the complete dastgāh of Segāh, with the movement away from the opening mode heard in phrases B and D followed in each case by a return to the darāmad mode, much in the manner of a forud. Since hodi va pahlavi was usually heard towards the end of renditions after the descent from mokhālef to the darāmad mode, it perhaps serves as a brief summary of the preceding course of musical events. However, whilst based in the broad modal areas of the darāmad and mokhālef (and also maqlub), hodi va pahlavi maintained a distinct identity through its characteristic rhythms (based on that of the opening motif) and melodies, in particular those of phrase A which regularly reappeared to affirm the identity of the gusheh; its overall structure; and its positioning within the dastgāh. These characteristics all contributed to the definition of this distinctive gusheh.

Interestingly, Performance 28 (one of three performances considered only in the analyses of Chapter Six; and which is a recording of a radio broadcast from the Golhā-ye Tāzeh series) is entitled "hodi va pahlavi", and lies somewhere between a performance of Segāh which emphasises the characteristic rhythms and motifs of hodi va pahlavi, and a significantly extended rendition of the gusheh itself, presenting material in the modal areas of the darāmad, mokhālef, muyeh, and maqlub, essentially in that order. Examples from this performance are discussed in Chapter Six.
5.2.6 General Considerations

An important point to emerge from the preceding analyses was that *gushehs* vary in their "density" of obligatory material and in the degree of variation between different versions of the same *gusheh*. Thus, in comparison with the analysed performances and *radifs* of *hodi va pahlavi*, those of the *darāmad* held less in common with one another, and in performance musicians had greater improvisational freedom. In a sense, then, it is easier to define the essence of *hodi va pahlavi* than that of the *darāmad*. Whilst this aspect of the music is mentioned in the literature with regard to the relative importance of *gushehs* (and Nettl and Foltin 1972:32-3 do briefly discuss the range of variation found between different *gushehs* in a number of improvised performances of *Chāhārgāh*), few writers have explored it in any detail, although this is partly indicative of the general dearth of detailed studies of improvisation in Persian music.

The discussion of this and the preceding chapter has pointed to a clear correlation between the length and prominence of a *gusheh* (according to the criteria discussed in Chapter Four) and the degree of variation from one version to another. Thus, the *gusheh* which was most varied (the *darāmad*) was also the longest and the most regularly heard (together with *mokhālef* *gusheh* in *Segāh*). As the analysed *gushehs* progressively decreased in relative length and prominence, so also did the degree of variation between different versions. Based on the above analysis (and also on the author’s analysis of other *gushehs* of *Segāh*), it is possible to suggest a continuum with *gushehs* placed at approximate positions relative to one another using the criteria of length, prominence, and variational potential (with *darāmad* as the longest, most prominent, and most subject to variation):

<table>
<thead>
<tr>
<th>+ darāmad</th>
</tr>
</thead>
<tbody>
<tr>
<td>mokhālef</td>
</tr>
<tr>
<td>maqīlub</td>
</tr>
<tr>
<td>hazeen</td>
</tr>
<tr>
<td>- naqmeh-ye maqīlub</td>
</tr>
</tbody>
</table>

*Figure 16 - Approximate Positioning of Gushehs in Segāh on a Continuum of Relative Length, Prominence, and Degree of Variation Between Versions*
Whilst the nature of the musical material is such that it is not possible to assign gushehs exact positions relative to one another, the above approximate designations serve to demonstrate the range of variation found. Thus, gushehs from maqlub downwards tended to have a greater density of obligatory features, both rhythmic and melodic, and gushehs with a relatively stable and pre-defined metric structure (at the lowest end of the continuum) were generally varied least in performance. However, it should be noted that an unmeasured gusheh does not necessarily imply greater creativity on the part of the musician. For example, hazeen and maqlub were not based on a regular metre, but they both had a relatively fixed melody in which the unmeasured rhythm of the music was fairly stable and was varied comparatively little from one version to another.

One of the main difficulties in assigning individual gushehs exact positions on the above continuum is that, as seen in the preceding analyses, the identity of gushehs is established and maintained in different ways. Each gusheh has an essential defining core, but the nature of this core varies from one gusheh to another. Thus, gushehs such as the dāramad, zābol, muye, mokhâlef, and also shekasteh muye, are identified primarily through their modal structures, opening and closing motifs, and also relative positioning within SEGāH, and much less through specific melodic and rhythmic characteristics or overall structure. GUSHEHS such as NAQMeh-Ye MAQLUB, masnavi, and hodī va pahlavī, however, are defined not only by modal characteristics, but also (and particularly) through specific melodic and metric structures (the first in a regular duple metre, and the latter two based on poetic metres).

Among the various factors which define a particular gusheh, it would seem that the more essential a factor is to the identity of the gusheh, the less likely it is to be varied. Thus, the modal character and opening motifs of the four main gushehs (dāramad, zābol, muye, and mokhâlef) were relatively stable in performance, and (with the exception of muye) variation in the positioning of these gushehs was minimal (see Chapter Four). Once again, however, gushehs differed in this respect. For example, the opening section of zābol appeared to play a more important role in the integrity of the gusheh than that of muye or mokhâlef, and was thus varied less in performance (see Section 5.3 below). Similarly, since less central gushehs (such as hazeen and maqlub) generally shared
(or were highly dependent upon) the mode of one of the main gushehs, their individual identity seemed to be marked through recognisable melodies which were varied relatively little in performance. Moreover, particular phrases of these gushehs (as well as sections of phrases) played a greater definitive role than others. Thus, at each level of the music, some features appeared to be more important in terms of musical identity than others. Above all, it was the modal character of gushehs that consistently emerged as an important defining element in the above analyses.

Whilst the continuum in Figure 16 is certainly useful in understanding the range of gushehs in terms of variation in performance, the analyses of this chapter have also suggested that a distinction might be made between two different types of gusheh. Thus, the darāmad and mokhālef differed in a number of important ways from maqlub, hazeen, and hodi va pahlavi, particularly with respect to the development of musical material in the improvisational process. In the longer gushehs, various techniques were used to develop phrases from short motifs, whilst in the less extended gushehs, such techniques were generally embedded within the relatively "fixed" musical structures of the gusheh. This aspect of the music will be explored in greater detail in Chapter Six (Section 6.4).

Just as the variation in the arrangement of gushehs discussed in Chapter Four was controlled within certain boundaries, so the improvisational elaboration of each gusheh was also found to be limited, although the extent of these limits varied from one gusheh to another. The mechanism which serves to maintain the outer limits of possible variation for a particular gusheh (that is, the limits beyond which the gusheh loses its identity) was described as "controlled variation" in Chapter Four. Underpinning controlled variation is the knowledge which a musician has of the extent to which a particular gusheh may be varied, a knowledge which is internalised in the course of many years of listening to and playing different versions of the music. This will be discussed further below.
5.3 Identity Within Gusheh Openings

Just as individual gushehs differ with regard to their degree of variational potential, so do sections within gushehs. Thus, as noted in the previous section, the openings of gushehs are often relatively stereotyped, with characteristic motifs which essentially serve to establish the identity of the gusheh. Similarly, gushehs often end with specific forud motifs which satisfactorily mark the conclusion of the gusheh. In order to explore this aspect of the music further, the opening phrases of a number of versions of three central gushehs - zãbol, muyeh, and mokhâlef - were compared. The analytical approach was essentially the same as for Section 5.2, but involved a larger number of examples of each gusheh opening.

5.3.1 The Opening of Zãbol

The opening of zãbol in ten performances and three radifs is presented in Example 27 (Appendix Four), in which the versions have been arranged so as to highlight patterns between different performances by the same musician or on the same instrument. The radif versions were very similar and showed the basic structure of the opening of zãbol to be constructed from two main phrases: a) an oscillation between e-koron and f followed by a resting on and emphasis of g (the shâhed of this gusheh); and b) a movement up to a-koron and down again to rest on g. Phrase a) was the most distinctive part of zãbol, and seemed to constitute the minimum necessity for the opening of this gusheh. It was shared by all of the versions analysed and completed the opening of zãbol in performances 3, 18, and 27 (santur part), all three versions following it with a châhârmezrâb.
Whilst the basic structure of phrase a) was varied, there were interesting correlations between a number of versions. For example, three of the four santur performances shared certain motifs and combinations of motifs (although these performances were in fact closer to radif 1 played on the tār than to radif 3 on santur):

From Performances 16 and 18

All four vocal renditions (three by the same musician) began on f rather than e-koron, followed by a brief oscillation between these two pitches. These versions (including the vocal radif) formed their own distinctive core, sharing a number of characteristics:

The basic material of phrase a) was repeated in three performances: the first half in performances 13 and 16, and the second half in performances 16 and 18.143

143 See Section 5.5 for brief discussion of the opening of zabol in a performance in which the initial e-koron/f oscillation was omitted.
Phrase b), with its movement up to a-koron (usually from f) was heard in all but the three versions which had concluded the opening with phrase a). As in phrase a), the vocal renditions shared much musical material, and all three vocal performances began on a-koron (with the exception of a brief statement of f in performance 1, also the pitch on which radif 2 began this phrase). In comparison with a), phrase b) was more extended, this extension taking a number of different forms. For example, the basic material of b) was developed as follows in performances 16 and 7:

![Performance 16](image1)

![Performance 7](image2)

One performance proceeded from phrase b) to a chāhārnezrāb, whilst four others moved into phrases which developed out of short motifs. Phrase b) ended on g in all three radifs, but on either g or e-koron in the performances. The more diversified material in phrase b) relative to phrase a) subsequently led to even greater diversification in the main part of the gusheh, until the end when stereotyped forud patterns were heard. It is interesting that in two of the radifs, the whole of zābol essentially comprised phrase a) and several repetitions of phrase b). Thus, these two distinctive phrases which so clearly marked the beginning of zābol seemed to embody the basic essence of the gusheh as found in two of the radifs.
5.3.2 The Opening of Muyeh

Example 28 (Appendix Four) presents the opening phrase of *muyeh* in six performances and three *radifs* of Segāh. Interestingly, whilst two of the analysed *radifs* began with the opening motif of *zābol* before proceeding to the modal area of *muyeh*, *radif* 2 and all of the performance examples began on either g or b-flat. The opening phrases explored the modal area of *muyeh* using the following patterns (*radifs* 1 and 3 taken from after the reference to *zābol*):

![Opening Phrase of Muyeh](image)

The similarity between the openings of the two vocal renditions (performances 17 and 27) and performance 8 played on the *kamancheh* was interesting given that the melodic aesthetic of this bowed instrument, with its sustainable sound, is generally considered to be closer to that of the voice than to the other main stringed instruments of Persian classical music (which are all plucked or struck, and have a decaying sound quality).

Each version developed a different part of the essence of the opening of *muyeh* as heard in the patterns presented above, all of the performances and *radif* 2 moving down to e-\textit{koron} or f at some point in the *gusheh* opening (note that the two *radifs* which began in the lower register did not subsequently venture below g). For example, whilst the following motif was developed in different ways in performance 15 (sanhur) and *radif* 1,
a different part of the opening material was the focus of performances 27 (santur) and 29, and radif 3:

The following motif was developed in performance 8, and in performance 17 (voice), the ascending pattern encountered in the analysis of mokhālef (Section 5.2.2) was heard, but using a slightly different motif:
Performance 4 and *radif* 2 both developed phrases in different ways, the former using sequential patterns,

![Musical notation for sequential patterns](image1)

and the latter using a developmental technique in which a musical idea is repeated and extended, usually ascending to a climax and then descending to a medial pause (see discussion of extended repetition in Chapter Six):

![Musical notation for developmental technique](image2)

The majority of versions reached a climax towards the end of the opening phrase around the upper c, and subsequently descended to end on g (in five performances and two *radifs*), f (in three performances and one *radif*), or a-*koron* (in one performance). It is interesting that, whilst the most common *isi* note in the analysed performances (g) was also the most common in the *radifs*, the least common (a-*koron*) was absent from the *radif* examples.

In some respects, the openings of *muyeh* were less standardised than those of *zābol*, particularly the absence of a distinctive opening motif. This might be a factor of the modal and positional distance of *muyeh* from the *daramad*, which perhaps renders it unnecessary for the opening of the *gusheh* to be as distinctive as that of *zābol* in order to maintain its identity. However, despite the absence of such a motif and the fact that each of the analysed examples was based on a different part of the essence of the *gusheh* opening, the beginning of *muyeh* was clearly marked, particularly by the descending melodic movement through b-flat, a-*koron*, and g, which gave it a certain lamenting quality in keeping with its name. Moreover, the intensive use of the melodic area between g and b-flat, and a generally restricted melodic range in comparison with *zābol*, also served to clearly identify the opening of *muyeh*.  

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5.3.3 The Opening of Mokhālef

The opening of mokhālef was briefly discussed as part of the analysis of the complete gusheh in Section 5.2.2. In addition to those considered above, a number of other versions of mokhālef were also analysed in the present section and these are shown in Example 29 (Appendix Four), which presents the opening phrase of mokhālef in eight performances and three radifs. The change of mode to that of mokhālef and the distinctive high point of the upper c certainly marked out the beginning of this central gusheh for attention. All of the analysed examples began with an exploration of c (the shāhed of this gusheh; performances 4, 10, and 17 [voice part] in the lower octave, see Section 5.2.2), either starting directly on c, or with a leap from the lower g, or a scalar ascent to c (characteristic of some, but not all, of the santur performances, and also the kamāncheh in radif 3).

As described earlier, following the opening emphasis of c, the music generally moved down to the area of the lower g before ascending again to emphasise c. However, this was subject to some variation, such that for example, a number of versions descended further than g, and the voice in performance 27 presented an extended descent, coming to rest on g without returning to an emphasis of c (in the opening phrase). There was also considerable variety generally in the use of melodic material and as in zābol and muyeh, ideas were presented and subsequently developed in different ways. However, it was possible to identify some correlations between the versions in terms of musical material. Thus, for example, the ascending phrase noted in radifs 1 and 2 in Section 5.2.2 (but absent from the earlier analysed performances) was heard in performances 16 and 27, both on the santur, and in radif 3 (kamāncheh) with some variation in the motifs used:

Performance 16

Radif 3
Similarly, the following phrases from performances 15 and 17 (also both on the santur, the latter already mentioned in Section 5.2.2 and presented in Example 9a) were comparable in terms of overall phrase shape and the undulating scalar movement:

Performance 15

Performance 17

The phrases below, heard in performances 27 (voice and santur) and 4, and in radif 3 (voice), were further examples of the tahrir passage presented in Example 9b (Section 5.2.2):
Similar phrases were also heard in a number of other versions of mokhâlef, but at a later stage in the gusheh (see Example 9b). The role of repeated motifs in building tension in tahrîr (as seen above) was also heard in performances 10 and 16, and radîf 1, the following examples being directly comparable with those above but using different motifs:

As in muyeh, there were correlations between radîfs and performances in the ist notes of the opening phrases of mokhâlef, such that two of the radîfs and five of the performances ended on c, two radîfs and three performances ended on g (including all four vocal renditions), and two performances ended on a-koron.

Among the three gusheh openings analysed in this section, that of muyeh appeared to be the least prescribed, followed by mokhâlef and then zâbol. In each case, the opening section was more clearly defined than the material which followed in the main part of the gusheh. Whilst there may be a relationship between the density of obligatory material in a gusheh as a whole and in the level of definition of its opening section, the latter may also depend upon other factors. Thus, it was suggested that the fairly fixed opening of zâbol may be related to the need to establish the identity of this gusheh after the prominent opening darâmad section. Similarly, mokhâlef had a striking opening, which emphasised the new modal area and the importance of this gusheh in the overall progression of the dastgâh.
5.4 Radif and Performance

The analyses of this chapter have attempted to reach an understanding of the essential elements of, and the potential for variation within, some of the gushehs of Segah. There is clearly a close relationship between these two: a gusheh with a more closely defined essence will generally experience less variation from one version to another. The analyses showed that the defining elements of a gusheh remained constant, whether in performance or in radif, as did the relative degree of variation from one version to another. This supports the idea that learning different versions of the radif is an important means by which musicians internalise the essential elements and the limits of variation for each gusheh, and this will be discussed further in Section 5.6. Generally speaking, there was less variation between radif versions of a particular gusheh than between different performances, a characteristic also noted in Chapter Four with regard to sectional organisation.

However, in terms of specific musical material, whilst the relationship between radif and performance was clear in the more closely defined gushehs such as maqlub and hazeen in which the relatively fixed structure is part of the essential identity of the gusheh, in the case of central gushehs such as the darāmad and mokhālef, the situation was more complex. These gushehs were longer on average in performance than in radif versions, suggesting that musicians expand upon the material of the radif in performance. However, it was interesting that not only was there much musical material in performances that was not heard in the radif versions (as might be expected), but the reverse was also true. Whilst performance and radif versions of central gushehs shared the essential defining elements as identified earlier, there was generally a sparse use of specific material from the radif in improvised performances of these gushehs. Thus, the analyses suggest that whilst the radif is clearly of importance in teaching the essential defining elements of each gusheh and the limits of potential variation which the structure of a gusheh can sustain before losing its identity, in the case of central gushehs it does not function as a fairly precise framework as it does for shorter gushehs. Instead, it would seem to be a means by which information regarding musical style and the development of musical material in creative improvisation is learnt by pupils, as well as playing an important inspirational role. Of course,
in all of these respects, the *radif* exists alongside and interacts with the ongoing performance tradition from which improvising musicians also draw, the latter tradition enriched and changed by each new interpretation of the *dastgâh*.

The complex relationship between *radif* and performance, already discussed in Chapter Four, was further highlighted in a number of ways in this chapter. For example, in some *gushehs*, the analysed *radifs* were very similar to one another, almost forming a separate core, related to, but independent from the analysed performances (see the analysis of the internal sectioning of *hazeen* in Section 5.2.4). Conversely, there were also examples in which performances of a particular *gusheh* shared material which was not heard in any of the analysed *radifs* of that *gusheh* (see the analysis of the *darâmad* in Section 5.2.1). Since the analysed sample included performances by Borumand, whose *radif* was also under study, it was interesting to note differences between the performances and *radif* of the same musician. Thus, for example, whilst *mokhâlef* started in the lower octave in two performances by Borumand, this was not a feature of his *radif* (although this was found in *radif* 4, and also in the final *reng* section of *radif* 1, see Section 5.2.2). Indeed, even within the same *radif*, there were interesting differences. In the analysis of *hodi va pahlavi* (Section 5.2.5), *radif* 2 included a section in *maqlub* which followed the structure of this *gusheh* very closely, but which was in fact closer to other renditions of *maqlub*, than to that of *radif* 2 itself (and analysed in Section 5.2.3).

There were also examples in which performances included material which was clearly derived from the *radif*, but from a different *gusheh*. Thus, the rising motivic sequence in the opening of *muyeh* in performance 17 (see Section 5.3.2.) was not heard in any of the other openings of *muyeh*, but was heard in all of the analysed *radifs* (and a number of performances, but not performance 17) in *mokhâlef* (see Sections 5.2.2 and 5.3.3), suggesting that this musical pattern was learnt as part of *mokhâlef* in the context of the *radif* and transferred to another *gusheh* during performance.

A further point of interest was that in some *gushehs*, there appeared to be a particularly close relationship between the vocal *radif* of Karimi (*radif* 2) and the analysed performances. For example, in Section 5.3.2, whilst in the instrumental
*radifs* (1 and 3) *muyeh* began with the same motif heard at the opening of *zâbol*, *radif* 2 together with all of the analysed performances, began with material specific to *muyeh*. Similarly, in the analyses of *mokhâlef* (Section 5.2.2) and *maqlub* (Section 5.2.3), there were closer parallels in terms of the use of melodic material between the analysed performances (both instrumental and vocal) and *radif* 2 than with the instrumental *radifs*. Correlations between *radif* 2 and the analysed performances were also noted in Chapter Four with reference to the inclusion of a number of *gushehs* in performances (particularly instrumental performances), these *gushehs* only being found in the vocal *radif* of *Segâh*. As stated in the previous chapter, the apparently close relationship between the vocal *radif* and the analysed performances (particularly instrumental) is significant. Even though musicians do generally learn a number of different *radifs* during training, and for instrumentalists this often includes learning the vocal *radif*, given the importance of Borumand (*radif* 1) as a teacher and his direct connection with many of the musicians in the sample of performances analysed, one might have expected there to be closer correlations between the performances and *radif* 1.

### 5.5 The Musician's Perspective

At the heart of the analyses of the present chapter is an exploration of the ways in which *gusheh* identity is established and maintained in performance, given the ever-changing nature of the improvisational process. Moreover, through studying *radifs* and improvised performances, the analyses have sought to explain some of the processes by which musicians come to understand the limits of potential variation and the essential identity of each *gusheh*. As stated at the outset of this chapter, whilst the main source for the analyses has been the music itself, information gathered from discussions with Berenjiân (and other musicians) was also important in the analytical process. Involving musicians in musical analysis can lend crucial insights into the cognitive processes of performance, whilst also adding the complexities of another interpretive "filter". Clearly, there may be differences between the concepts of musicians and the (necessarily subjective) evidence of musical analysis. For example, musicians may be surprised at the degree of their own predictability, as was the Lebanese musician, Jihad Racy, in the study by Nettl and Riddle quoted in Chapter One:
... Racy himself, after seeing some of the analytical data, indicated surprise at the degree to which his performances followed certain patterns. (1973:13)

Thus, as discussed in Chapter Three, the role of the ethnomusicologist is not to identify the "correct" answer, but to explore the various perspectives of musicians and the (subjective) evidence of musical analysis, in order to understand the diversity of ideas and how this is manifested in the music.

Since detailed aspects of the musical structures are not generally discussed by musicians in this tradition (something which may be related to the relative dearth of technical musical terminology), information from this source is not always readily accessible. However, in the course of aurally analysing with Berenjiän many of the recordings on which the analyses of this study are based, a number of interesting points emerged with respect to the identity of gushehs. Indeed, the very process of discussing gusheh identity with Berenjiän and learning from him how to identify particular gushehs (as well as learning to play the radif of Segāh from him) provided insights into some of the cognitive processes involved. For example, whilst analysing a performance in which zabol did not begin with the usual oscillation between e-koron and f (see Section 5.3.1), the following exchange took place:

LN: Is this muyeh?
FB: No, it's zabol. The emphasis is on the third degree.
LN: Doesn't zabol have to approach g from e-koron and f?
FB: It doesn't make any difference.
LN: So it's alright to approach it from above?
FB: The opening is not important. What is important is the note on which it stops - the ist. In muyeh it's the fourth degree, in zabol it's the third. He is improvising ("dāreh bedāheh navāzi mikoneh") - If he wanted to approach from below, he would be playing the radif. He can't simply play the radif.
LN: But he maintains some things from the radif?
FB: Yes, the ist. (Interview 12.10.89)

This tells us that in zabol, the ist note is important in maintaining the identity of
the gusheh. On a separate occasion, however, Berenjiân claimed that the whole beauty of the opening of zabol lies in the characteristic motif omitted in the above performance, thus making a statement of aesthetic value and implying that although the opening motif may not be essential to the identity of zabol, it is aesthetically desirable.

Following extended periods of discussion with musicians, listening to, analysing, and playing individual gushehs, the researcher clearly reaches a point at which s/he has to some extent assimilated the basic rules (including the aesthetic "rules") of the music. An interesting extension to the above analysis would therefore be to use this knowledge to generate different versions of gushehs (much as musicians themselves do in performance, although by no means implying that the cognitive processes are the same), which could then be subject to the evaluations and comments of musicians. Such evaluations might then be incorporated into a deeper understanding of the rules by which gushehs are defined and created (see Kippen 1985, 1987, 1988b, and Kippen and Bell 1992 for such a project using bol patterns of North Indian tabla music). As mentioned at the beginning of this chapter, musicians generally discuss the identity of gushehs in terms of both modal characteristics as well as specific aspects of melody and metre/rhythm in the case of shorter gushehs, aspects of the music for which terminology is available. However, there is rarely discussion of gushehs in terms of the essential "core" (which does not necessarily include all of the important aspects of mode which musicians talk about), or the limits to potential variation, and this is an area to which one might gain access through the kind of work carried out by Kippen and Bell.

Whilst detailed exploration of the cognitive processes relating to gusheh identity (both on the part of musicians and also on the part of informed listeners) requires extended contact with musicians, something which was not feasible in the present study, but which would certainly be an important area for future research, and a valuable addition to the evidence presented in this chapter, it was, however, possible to draw upon such sources as were available, including the assistance of Berenjiân in the initial aural analysis of performances. Discussion with musicians can clearly provide important evidence regarding the ways in which the identity of a gusheh is negotiated in performance amongst the various available options,
including which features of the music are essential, and also which features might be more or less aesthetically desirable. This chapter has necessarily focused on the former (that is, what makes a gusheh recognisable as that particular gusheh), without considering the important, but complex area of aesthetics - the criteria by which one version of zabol, for example, is considered to be "better" than another. Issues of aesthetics and the relationship between aesthetic factors and musical (particularly motivic) structures will, however, be considered in Chapter Seven.

5.6 Concluding Discussion

The analyses of this chapter have suggested that in Segah each gusheh exists in a (potentially infinite) number of variants, but that this variation is controlled within certain boundaries, beyond which the identity of a gusheh may be compromised. Moreover, the range of acceptable variation appears to differ from one gusheh to another, the variational potential of a gusheh being in part related to the density of defining elements in the gusheh: more closely defined gushehs were varied less in performance (and from one version of the radif to another). The difference between gushehs in terms of variational potential also seemed to be related to other factors such as the relative length and prominence of the gusheh within Segah. Thus, the most prominent gushehs were also those subject to the greatest degree of variation, lending support to the suggestion made in Chapter Three that in the Persian musical system (and social system, see Nettl 1979 and 1987:157), importance generally goes hand in hand with licence (referred to as "idiosyncrasy credit" by psychologists, using the term coined by Argyle). However, it should also be noted that in terms of the detailed musical structures, the more important a musical element was in defining a gusheh, the less likely it was to be varied. The image evoked by Herndon to elucidate the idea of ranges of variation in different musical parameters is relevant to this discussion:

I think of this as a series of rubber bands of differing sizes, ranges ... they expand or contract (at differing rates, sometimes) and ... each rubber band has a point to which it can be stretched ... There are ranges of performance in individuals, groups, genres, styles, forms, contexts, cultures, and so on. They change through time ...
Our goal must be to discover as many of these ranges as possible, and how they relate to one another. (ed Herndon and Brunyate 1976:198)

Thus, individual *gushehs* can be "stretched" to varying lengths before they "snap", or lose their identity.

However, whilst *gushehs* were assigned approximate positions on a continuum representing variational potential, length, and prominence, it was also suggested that there are essentially two types of *gusheh*: the one representing a greater degree of flexibility in performance and the other being more pre-defined and less subject to variation. Moreover, it was also noted that the defining elements on which the identity of each *gusheh* rested varied to some extent from one *gusheh* to another. For each of the five *gushehs* discussed in detail in this chapter, the analyses suggested musical features which appeared to be specific to, essential for, or characteristic of the *gusheh*. Whilst each *gusheh* shared with others essential and characteristic elements as well as other more general material, the relative importance of these seemed to vary from one *gusheh* to another. In addition, it was suggested that such musical characteristics might be specific, essential, or characteristic of particular performers or instruments, or even of *Segāh* or Persian music in general. The result is a complex network of interrelated musical features, with patterns of sharing between different renditions and sections of repertoire, with different features more or less integral to each. However, the single most important defining element within individual *gushehs* of *Segāh* was clearly that of mode.

But how do musicians learn the acceptable limits of variation and the defining elements for each *gusheh* (as well as other characteristic and/or specific elements)? How are they able to re-create a *gusheh* anew at each performance, whilst at the same time maintaining its identity? As discussed in previous chapters, musicians clearly develop a broad knowledge base over many years, both through learning different versions of the *radif*, as well as through performing and listening to other musicians, and it is presumably this knowledge which forms the basis for musical creativity. Thus, in the above analyses, clear parallels were identified between *radif* and performance versions of particular *gushehs*, such that the defining elements of a *gusheh* were constant, whether in *radif* or in
performance. Similarly, the range of variation heard between different versions of the same *gusheh* was similar in *radif* and performance versions (with a wider range of variation, however, between performance versions of a particular *gusheh*). This would seem to support the suggestion made earlier that learning different versions of a *gusheh* is an important means by which a musician learns to improvise, since it enables him to discern both the essential unchanging elements of the music, as well as the ways in which the music can be varied and the limits of acceptable variation. Thus, a musician may learn many different versions of, for example, the *darâmad* of *Segâh* in the course of his training, both from different versions of the *radif* and through informal listening. On the basis of these experiences, it seems likely that he subconsciously extracts the "essence" of the *darâmad* - those elements which are essential to its identity and which occur in every instance of this *gusheh* - as well as the limits of acceptable variation in the *darâmad*, and other aspects of the music. Through this process, the musician also builds up a store of aural and sensori-motor patterns which can be used in performance and which can form the basis for the generation of new patterns. Thus, as discussed in Chapters Two and Three, and also with specific reference to the overall organisation of *Segâh* in Chapter Four, the structure of the *radif* itself seems to teach musicians the rules and limits of recreation.

It should also be noted that, as in Chapter Four, similar principles of organisation were encountered at different levels of the music. For example, just as the overall structural organisation of performances was found to be subject to controlled variation, so individual *gushehs* were heard in a large number of variants, but within certain limits. Thus, controlled variation played an important role in maintaining the identity of individual sections of repertoire around unspoken (and possibly hypothetical) "norms" in the midst of continual variation. There were further examples of similar principles at different structural levels: just as *Segâh* was shown to be more stereotyped at the beginning and end of the complete *dastgâh* in comparison with the central sections, so it was with individual *gushehs*; just as the overall melodic contour of *Segâh* (and other *dastgâhs*) is arch-shaped, so, generally speaking, were the contours of individual *gushehs* and phrases within *gushehs*; and just as some *gushehs* were varied to a greater extent than others, so too were individual sections within *gushehs*. Finally, the analysis of *hodi va pahlavi* showed how the modal progression of the complete *dastgâh* can
be embodied within the structure of one *gusheh*. It seems likely that these similar principles of organisation at different levels of the music provide an important unifying force in the music.

Whilst it is clear that musicians continually draw on a complex of past musical experiences in order to create new musical material, it is possible that some of the basic creative processes are already embedded in the human mind. As suggested earlier, there may be similarities between the cognitive processes by which musicians learn to improvise and those involved in other creative activities: the human mind seems adept at acquiring types of knowledge - such as linguistic, mathematical, or musical knowledge - which depend upon the storing of different types of data, their comparison and analysis and the subsequent generation of new patterns on the basis of these. Thus, in hearing many different versions of the same *gusheh* or *dastgāh*, musicians seem to "extract" the essence and limits of variation, as well as the rules of re-creation (to be discussed in Chapter Six) for that particular section of repertoire.

In Persian music, any section of the repertoire has more or less clear limits both in terms of its minimum defining requirements and also its potential for variation. Whilst these are rarely discussed within the tradition (beyond the significant elements of mode), they are essential to identifying and "re-creating" the repertoire, and form part of the subliminal musical knowledge of both musicians and informed listeners. In focusing on the structures of *Segāh*, this chapter has aimed to provide a framework for understanding the underlying processes by which the musical material is generated. Many of these processes are in fact embedded within the musical structures themselves, and these will be examined in Chapter Six.

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144 For example, the reader is referred to Gardner (1983:122-127) who discusses the relationships between what he terms "Musical Intelligence" and other types of "intelligence", such as "Linguistic Intelligence" and "Logical-Mathematical Intelligence".
6.1 Introduction

Exactly how do musicians proceed from their somewhat "theoretical" knowledge of the *radif* to the practice of improvised performance? Given that, to a large extent, the performer is also the composer in this music, what compositional techniques do musicians use in performance to re-create the learnt repertoire, and what do these reveal of the underlying creative processes? In addressing these questions, the present chapter will examine compositional techniques within the *radif* as well as the ways in which they are used to generate musical material in performance. The analyses of this chapter are based on the same versions of *Segāh* considered in Chapters Four and Five, with some reference to *dastgāh Māhur* for purposes of comparison.145

6.1.1 Compositional Techniques in the Literature

Whilst the extant literature provides few detailed studies of improvisation in Persian music, a number of writers have listed techniques used by musicians in their creative improvisations. Zonis, for instance, mentions and gives examples of the following: repetition, comprising literal repetition, *zir-bam* (the shifting of octaves characteristic of renditions on *santur* and violin), sequence, and varied repetition (rhythmic and/or melodic modifications to a phrase); ornamentation, including *riz* (tremolo), trills, *tekiyeh*,146 and arpeggios (in somewhat westernised performances); and centonization, "... the joining together of familiar motives to produce longer melodies", particularly at the ends of phrases (Zonis 1973:105-114). Nettl also lists repetition and melodic sequence, but in addition includes

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145 In addition, examples will be take from three performances of Segāh not considered in Chapters Four and Five: performances 19, 21, and 28, the latter based around the characteristic sounds of the *gusheh hodi va pahmani* (as discussed in Chapter Five, Footnote 139). The reader is referred to Appendix One for details of these performances and of the versions of Māhur analysed.

146 *Tekiye* (lit. "leaning") refers to the technique in which a note is briefly alluded to in the manner of an "upper auxiliary note", particularly characteristic of vocal renditions. Sādeghi discusses this technique (1971:111-113), and it is also mentioned by Zonis (1973:109, although she does not use the Persian name).
extension, augmentation, and contraction, as well as the combination of
techniques, such as "... repetition, followed by upward transposition that is
followed by a second transposed version given in extended form" (1987:40). The
discussion of improvisation by Sādeghī essentially includes the same techniques
as those mentioned above (1971:95-119), and During (1987c:139) also lists a
number of improvisational techniques, although the absence of illustrative musical
eamples renders some of these rather unclear. It is interesting that Sādeghī
bases much of his discussion of improvisational techniques on analysis of
eamples from radifs (those of Sabā, Ma'rufi, and Vaziri) rather than live
performances, claiming that, "The examples chosen from printed books were in
an improvisatory stage before they were notated (op.cit.:136). Whilst it is
doubtful whether the specific radifs used by Sādeghī were in fact originally
improvised, the use of these examples illustrates another aspect of the close
structural relationship between radif and performance (discussed in the preceding
chapters), and also points to the origins of the radif in performance practice (but
less recently than Sādeghī seems to suggest; see discussion in Chapter Two,
Sections 2.2.2 and 2.2.3). Zonis similarly illustrates improvisational techniques
using notated examples mainly from the radifs of Ma'rufi and Sabā, stating in a
footnote that she considers the former, at least, to be very close to improvised
performances (1973:115).

Of all the techniques (or "procedures") by which musical material is generated in
improvised performance, the most fundamental would appear to be that of
repetition. However, this repetition is rarely exact, but involves a continual
exploration of the potential of variation, seen also in the intricate designs of
Persian carpets and miniatures to which the music is often compared (see, for
example, Zonis op.cit.:108-9). Just as this perpetual variation of a small number
of motifs produces highly complex, yet unified patterns in the visual arts, so in the
music, a few basic procedures and motivic patterns result in an indefinite number
of varied structures. Repetition is important in this music, not only as a means
of developing material, but in its germinal role with respect to other procedures:

One of the essential principles of free play ... is repetition. The ear
likes to hear the same motif or modal structure, but on the other
hand, repetition engenders lassitude. The great art consists,
therefore, of respecting an apparent symmetry whilst developing the
motifs or the modal or rhythmic structures. Thus, the potential of a motif is sometimes explored in a systematic, almost logical way: it is transposed, developed, abridged, lengthened, etc. (During 1984a:195)

Beyond listing these various procedures, however, only a few writers on Persian classical music (mentioned at the beginning of Chapter Four) have ventured to explore the improvisational process in detail, by looking at how such procedures are used and varied by musicians in performance.

6.1.2 Compositional Techniques in Segāh

The discussion which follows is based on the analysis of each performance and radif of Segāh under study (mainly aural, but with the aid of transcriptions) and of other dastgāhs, the aim being to identify particular compositional procedures used by musicians in creative improvisation and thereby to better understand the underlying creative processes, and specifically the relationship between radif and performance. In the absence of discussion of improvisational procedures by musicians, the categories outlined below are those of the author, based on intensive study and familiarity with the music. As in previous chapters, there is no suggestion that these categories represent a replication of musicians' cognitive processes. The aim is simply to identify and to suggest possible explanations for structural patterns which became apparent in the course of this analysis of Segāh. Both the complexity of the relationship between radif and performance (including the difficulty of specifying which version of the radif a particular performance was based upon) as well as the deeper level of analysis involved, rendered the direct comparison of different versions of complete gushehs (as in Chapter Five) inappropriate to this chapter. Instead, the analysis largely comprises discussion of the details of musical composition through extracting and comparing short sections of individual gushehs. However, following the initial discussion of the various types of developmental procedure found in the music, one radif and one performance version of mokhālef are directly compared with one another (Section 6.6).
If one considers the following phrases from two different performances of Segāh, the musicians appear to be using the same basic principle of musical construction - stating an idea, repeating it, and extending it on a third statement - but in different gushehs, and with different melodic material:

[1] Performance 9 - Rezā Shafeiān - santur - daramad - 0'15" (Side A)

[2] Performance 27 - Shajariān - male voice - zābol - 0'42" (A)

In the course of this analysis of radifs and performances of Segāh, many examples of this type of structure were encountered: the same basic principle or procedure, but heard in the context of different musical material. Moreover, a number of other procedures were also identified, some of which were related to that above. These procedures, and the relationships between them, provided interesting insights into the creative processes of improvisation, and form the main focus of this chapter.

The analyses of Segāh which follow suggest that the internal structure of each gusheh comprises a small number of highly interdependent developmental procedures and motifs which lend the music a very specific and unified character.

147 The following details are given for each musical example: performance number, performer, instrument, gusheh, and location of the extract on accompanying Cassette 2 (in real-time). All of the musical examples presented in Chapter Six are listed in the introductory section of the thesis.
The developmental procedures most frequently heard were extension and sequence, although varied repetition and contraction were also important, both in their own right and as an integral part of other procedures. The relationships between the various procedures might be represented as in the figure below, which suggests the existence of a small number of basic developmental procedures in a series of variants:

![Figure 17 - Basic Developmental Procedures in Segāh](attachment:image)

This chapter will consider the various types of extension found in the body of material under study, and there will also be some discussion of other procedures.
6.2 Extension

Extension, like repetition, is an essential characteristic of Persian music and was heard in a variety of forms in the versions of Segāh under study. Approximately three hundred examples of musical extension were identified in both performances and radifs and were subsequently grouped into the following categories: simple extension, extended repetition, and transpositional extension. A number of examples of each type of extension will be presented in this section, both in order to demonstrate the variant forms of each type of extension, and also to highlight the different contexts in which each type was heard in the body of music analysed. As the following examples will demonstrate, extension was often used by musicians as the basis for constructing complete phrases, but was also used in shorter sections within a phrase. The examples are taken both from radifs and performances of Segāh.

6.2.1 Simple Extension

In simple extension, an initial musical idea was extended on each successive (or alternate) statement, either "vertically", such that a higher pitch was reached on each extension,

[3] Performance 23 - During - setār - kereshmeh - 1'10''(A)

These being categories constructed by the author on the basis of the observed musical structures. For the purpose of analysis, each type of extension is identified by a letter and superscript numbers, as will be seen in the course of this section.
or with a "horizontal" extension,


6.2.2 Extended Repetition

Encountered commonly in Persian music, and also noted by Nettl - "... the respective themes are stated twice, slightly varied, and a third time in an extended and elaborated form." (with Foltin 1972:29-30) - is the procedure mentioned in section 6.1.2 above, and which has been called "extended repetition" by the author (in fact, in the examples heard in Segāh, the second statement was not always varied as Nettl suggests). This procedure was heard both in radifs and in improvised performances of Segāh, in a variety of contexts, and applied to different types of musical material. In the most basic form of extended repetition (A¹), a motif or phrase was stated twice and extended on the third statement to a climax and usually down through a sequence to a medial pause:

\[ \text{[1] Performance 9 - Shafeiân - santur - darâmäd - 0'15"(A)} \]

\[ \text{[2] Performance 27 - Shajariân - male voice - zābol - 0'42"(A)} \]

The basic structure of A¹ was found to be varied in a number of ways. For instance, in some examples, the second statement was varied, as noted above by Nettl (A¹⁰):
The material of example [8] was clearly related to that of example [6] in A, but was developed in a different way (similarly for examples [7] and [9]). A was also varied by the extension of material occurring not on the third, but on the second statement (A):
and occasionally on the fourth (A\(^{(n)}\)):

[12] Performance 18 - Pāyvar - santur - forud of Segāh - 4'46"(A)

Combinations of the above were also heard, such as A\(^{(0)}(0)\):


The above three examples, incidentally, were also related through their use of forud (cadential) material.\footnote{149}

Interestingly, whilst A\textsuperscript{1} appeared to be the simplest form of extended repetition, it was also possible to identify other types of extension in the music which appeared to be related to A\textsuperscript{1} (and its variants). These were extracted and classified (by the author) on the basis of the nature of the extension (the suffixes (i), (ii) and (iv) applied in the same way as for A\textsuperscript{1}), and some examples are presented below. Thus, a number of examples were heard in which the extension was based on a contraction of the original phrase (A\textsuperscript{2}):

\begin{music}
\begin{musicn}
\setstaffnumber{1}\setclef{4}:
\begin{musicblock}
\begin{musicn}((1) \quad (2) \quad (3) \rightarrow)
\end{musicn}
\begin{musicn}((1) \quad (2) \quad (3) \rightarrow)
\end{musicn}
\end{musicblock}
\end{musicn}
\end{music}

\[16\text{] Radif 3 - Esmail Tehrani - santur - maqloob - 6'11"(A)\textsuperscript{150}\]

\begin{music}
\begin{musicn}
\setstaffnumber{1}\setclef{4}:
\begin{musicblock}
\begin{musicn}((1) \quad (2) \quad (3) \rightarrow)
\end{musicn}
\begin{musicn}((1) \quad (2) \quad (3) \rightarrow)
\end{musicn}
\end{musicblock}
\end{musicn}
\end{music}

\[17\text{] Performance 28 - Hassan Nahid - nei - muye\textsuperscript{151} - 6'46"(A) (over poetry)\]

\footnote{149} The particular melodic patterns which identify cadential passages at the ends of gushehs (and in extended form at the end of the darâmah), and which may also be heard at other points in the music.

\footnote{150} The composite nature of radif 3 has already been discussed. Most of the examples from radif 3 analysed in the present chapter were played by Esmail Tehrani on the santur.

\footnote{151} See Footnote 137, Chapter Five.
Once again, the relationship between example [18] and the earlier examples [13]-[15] in the use of *forud* material should be noted.

Another type of extended repetition identified was that in which the extension was based on the opening notes of the phrase (A³):

[19] *Radif 3 - Shajarián - male voice - mokhalef - 7'31"*(A)
A number of examples were heard in which the extension was based on part of the middle of the opening section of the phrase (A, or of the varied repeat of the opening section in A⁴⁰):
Finally, there were examples in which the extension was not directly derived from preceding material in the phrase (A5):

\[\text{[27] Performance 21 - Shajari\text{"an} - male voice - maqlub - 10'08''(A)}^{152}\]

\(^{152}\) This phrase is a good example of the common use of various types of extension, particularly extended repetition and multiple extended repetition, in the climactic tah\text{"ir} sections of phrases, most notably in vocal renditions. A number of the musical phrases given in this chapter similarly present examples of tah\text{"ir} (see, among others, examples [32], [33], [48], [49], [90], [108], [116], and [117]).
The examples of simple extension and extended repetition presented above demonstrate the ways in which musicians seem to apply similar principles of composition to different types of musical material. Thus, for example, procedure A\(^3\) - in which a musical idea was stated, repeated, and followed by an extension based on its first few notes - was applied to material ranging from a short motif (example [21]) to a complete phrase (example [20]). What is significant is that the basic principle of musical construction remains the same, a fact which has important implications for understanding the creative process, as will be discussed below. Also of interest is the fact that the structure of extended repetition, with its heightening of tension through repetition and delayed resolution, can be compared with the use of language in certain types of emotive oratory (known as rajazkhānī). Thus, this type of musical structure may be shaped by factors which are deeply rooted within the culture and not determined solely by musical factors (see Section 6.8.3 for a brief discussion of this issue).

6.2.3 Multiple Extended Repetition

Whilst extended repetition (A\(^1\)) was found in a number of variant forms (A\(^2\) to A\(^5\), and the suffixes (i), (ii) and (iv)), each of these variants increasing the potential for the generation of new musical material, the basic structure of extended repetition was varied even further in another type of extension: multiple extended repetition. In this, an initial extension was followed by a second extension based on the whole or part of the opening musical idea, effectively
producing two successive extended repetitions. In the most elemental form of multiple extended repetition (B'), the whole of the first section of the original phrase itself formed the phrase extension:

As with extended repetition (and using similar categories), multiple extended repetition was heard in a number of variants in which part of the first section of the original phrase formed the basis for the extension. This generally resulted in phrases in which motifs became progressively shorter, creating increased tension and leading towards the climax and resolution of the complete phrase. Thus, in

---

133 In multiple extended repetition, it is the nature of the first extension which forms the criteria of categorisation rather than that of the second.
example [32] the extension was formed from a contraction of the first section of the original phrase (B²):

\[ \text{[32] Performance 27 - Shajariān - male voice - mokhālef - 12'28"(A)} \]

The following examples (the first from the same performance and by the same performer as that above) demonstrate how the structure of B² was subject to variation (B²⁶, indicating variation of the repeat of the first section of the phrase):

\[ \text{[33] Performance 27 - Shajariān - male voice - zābol - 12'59"(A)} \]

In a number of examples, the extension was formed from the beginning of the first section of the phrase (B³):

\[ \text{[34] Radif 3 - Tehrāni - santur - mokhālef - 13'25"(A)} \]

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The structure of B³ was further varied by adding a transposed version of the first section of the phrase before the extension (compare with transpositional extension below):

Multiple extended repetition in which the material for the extension was formed from the end of the first section of the phrase (B⁴) was encountered regularly, and played a particularly important role in the *gushehs maqlub* and *hazeen*:
[38] Performance 18 - Pâyvar - santur - maqlub - 14'47"(A)

[39] Radif 1 - Borumand - tār - muyeh - 15'33"(A)

[40] Performance 23 - During - setār - mokhâlef - 16'06"(A)
  (based on the end of varied repeat of first section)
Further variation to the structure of multiple extended repetition was created by the extension being formed from material in the middle of the first section of the phrase (B⁵):

[44] Performance 20 - Ebādī - setār - darramad - 17'38"(A)
In some cases, the material for the extension was not directly related to the original phrase (B⁶):


B⁶⁰

[47] Performance 28 - Shajariān - male voice - shekasteh muye - 18'58''(A)

The above examples illustrate the various types of extended and multiple extended repetition (and their variation) as found in the versions of Segāh under
study. In addition, some of these were heard in combination, effectively producing a series of extensions, as in the following examples (the first two from different performances by the same musician):

\[
B^2 \rightarrow B^3
\]

\[
\text{Performance 1 - Lotfi - tār - muyeh in forud of Segāh - 19'36"(A)}
\]

\[
B^3 \rightarrow B^4
\]

\[
\text{Performance 7 - Lotfi - tār - zābol - 19'59"(A)}
\]

\[
B^4 \rightarrow B^3
\]

\[
\text{Performance 16 - Meshkātiān - santur - eshāreh be maqlub (chāhārmezrāb-e mokhālēf) - 20'21"(A)}
\]
As with simple extended repetition, a basic compositional principle or procedure appeared to be varied in a number of ways and applied to different types of musical material, suggesting a musical system in which the potential for recreating the tradition at each performance is almost infinite.

6.2.4 Transpositional Extension

In its most elemental form, transpositional extension was a type of extension in which a short phrase or motif was stated twice, transposed up one scale degree, and then stated once again at the original pitch (A A A⁺¹ A). A large number of examples of this type of extension were identified in the course of analysis, particularly in measured pieces such as chahārmezrābs. Once again, there is the application of a similar procedure to different types of musical material. Whilst the nature of the musical material demands different analytical categories to those of extended and multiple extended repetition, the suffix (i) still indicates a variation in the repeat of the first section of the phrase. C¹ indicates the basic structure of A A A⁺¹ A:

[51] Performance 16 - Meshkātiān - santur - mokhālef - 20'38''(A)

[52] Performance 10 - Lotfollāh Majd - tār - darāmad - 21'00''(A)
This basic structure was subject to variation, for example, by the repetition of one
or more phrases (C²),
or by the omission of one or more phrases ($C^3$):

[56] Performance 10 - Majd - tär - dārāmad - 22'41"(A)

[57] Performance 26 - Borumand - tär - mūyeh - 22'59"(A)

[58] Performance 8 - Bahārī - kamāncheh - mokhālef - 23'18"(A)
One or more phrases were occasionally lengthened ($C^4$):

There were no examples of the shortening of phrases in this type of transpositional extension, although the analyses suggest that this is a possible means of varying the musical structure (which musicians perhaps chose not to use in the specific sample of performances analysed).

As with multiple extended repetition, procedures were found in combinations:

Another type of transpositional extension, similar to that described above (but categorised separately for analytical purposes, since it was also found in a number
of variants), was that in which $A \ A \ A^+$ resolved not into a final statement of $A$, but into a descending melodic sequence. In cases where the original phrase itself comprised a sequence, it was this which was extended downwards after $A^+$ ($D^1$),

![Musical notation](image)

[61] Performance 25 - Borumand -  $t\ddot{a}r$ - zâbol - 24'26"(A)

![Musical notation](image)


The basic structure of $D^1$ was further varied in the following example, with $A^+$ replaced by $A^{+2}$:

![Musical notation](image)

[63] Performance 11 - Borumand -  $t\ddot{a}r$ - zâbol - 25'03"(A)

Occasionally, $A^+$ and the following sequence were formed from a contraction of the first section of the phrase ($D^3$),

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or the material for the sequence was taken from the end of the first section of the phrase (D³):

In the final type of transpositional extension, the core structure of C was again varied, leading not to an upward transposition, but to a descending movement: A A A¹ (E¹):
In some examples, the three-phrase structure described above was extended into a downward sequence derived from the preceding musical material (E²):
It was also common for the core of $A A^{-1}$ to be followed by a sequence which was unrelated to the original $A$ section ($E^3$):

$E^{30}$

Extracted and classified by the author, examples [1]-[73] show the many different types of extension found in the analysed versions of *Segāh*. Whilst it was only possible to present a limited number of examples for each type of extension (as
mentioned above, those identified and studied as part of this analysis numbered approximately three hundred), what emerged from the examples was a complex network of basic procedures which were varied in a number of ways. Thus, not only were A² to A⁵ essentially variations on the basic structure of extended repetition (A¹), but at the same time, each of these also underwent variation, such as the extension occurring on the second section of the phrase (A⁰), or the second section of the phrase being varied with respect to the first (A⁰). Similarly, whilst the structure of multiple extended repetition as represented in B¹ was itself a variation of extended repetition, it also formed a separate core of variants (B² to B⁶), which were themselves subject to variation in the same way as described for A⁰ and A⁰. The result was a kaleidoscopic set of variations of procedures and potential for re-creating the repertoire on each performing occasion.

6.2.5 Procedures, Processes, and Principles

A number of points regarding the underlying cognitive processes in this music were suggested by the compositional procedures identified above. Firstly, examining the relationship between A' and B' and their variants in the form of A² to A⁵ and B² to B⁶, it is clear that the latter result from the phrase extension being constructed from different parts of the original phrase. If one compares the phrase in example [44] to another heard earlier in the darâmad (same musician, same performance), it can be seen that whilst both began in the same way,

the extension of example [44] was formed from the middle of the first section of the phrase - B⁵,

[44] Performance 20 - Ebâdi - setâr - darâmad - 17'38"(A)
and that of example [74] from the end of the first section of the phrase - $B^4(0)(0)$:

![Musical notation]

[74] Performance 20 - Ebādi - setār - darāmad - 29'03"(A)

Thus, the phrase opening given above appears to present a series of options to the musician: how many times to repeat the initial part of the phrase; whether or not this repetition should be exact; which part (or all) of the initial part of the phrase should be used in the subsequent phrase extension; and what the exact nature of this extension should be. Indeed, using these various options, the analyst is able to generate hypothetical phrases which can then be evaluated by musicians.\textsuperscript{154} Thus, using the phrase opening above, the following phrases were generated using procedure $B^3(0)$:

![Musical notation]

[75] 29'24"(A)

and $A^3$:

![Musical notation]

[76] 29'50"(A)

Similarly, consider the following examples from radif 1, both of which began in

\textsuperscript{154} As discussed in Chapter Five, gaining feedback from musicians regarding generated musical material may provide interesting insights into the cognitive processes of musical creation, and remains an area for future research.
the same way, but in which different parts of the opening section of the phrase were extended, as in the examples above:

[77] B¹ - Radif 1 - Borumand - tār - mokhālef - 30°23''(A)

[78] B⁴(α) -> B⁴(β) - Radif 1 - Borumand - tār - mokhālef - 30°52''(A)

Thus, whilst in example [77] the extension was formed from the whole of the short opening section,

in example [78], it was only the first four notes of the opening which were heard in the extension,

followed by a further extension using the last two notes of the first extension:
A further example, taken from radif 3, began in the same way as examples [77] and [78], but the phrase was extended using a form of transpositional extension:

Examples [77]-[79] show phrases within the repertoire of the radif in which the same musical material was developed in different ways. Thus, it is possible to see how, in the process of memorising different versions of the radif, musicians come to learn different ways of varying the same basic musical material, as well as understanding the potential for variation embodied within each gusheh. Once internalised, this information becomes part of the knowledge base from which musicians may later draw in the process of improvised performance. It seems likely that compositional techniques (such as the various types of extension described above) are learnt in specific musical contexts within the radif (or in the course of informal listening), and that these become abstracted in the mind of the musician such that the principles of musical construction embodied within them can be applied to different types of musical material. Thus, the implication is that at some (unverbalised) level of conceptualisation, the constituent elements of a learnt phrase are not simply interchangeable, but that their essence is extracted and available to be used in different contexts in performance.

However, it was interesting that only the following types of extended repetition, multiple extended repetition, and transpositional extension were heard in the analysed radifs of Segāh (including a number of examples which will be presented below): A² (example [16]), A³ (example [19]), B¹ (example [77]), B⁴⁰ (example [34]), B⁴ (examples [39] and [136]), B⁶⁰ (examples [125] and [135]), B⁶⁰ going to B⁶⁰ (example [78]), C¹⁰ (example [54]), D⁶⁰ going to D³ (example [100]), and E¹⁰ (examples [68] and [69]). Whilst a larger sample of analysed radifs might have increased the number of procedures found within radifs, it is possible that
some of the procedures identified in the performances were learnt from the *radifs* of *dastgāhs* other than *Segāh*. Moreover, it might also be suggested that procedures learnt within the *radif* form a basis from which musicians can generate new procedures. For example, *A²* and *A³*, procedures in which the extension is based on a contraction of, and the first few notes of, the first section of the phrase, were heard in examples [16] and [19]. It is possible that on the basis of these, the musician is able to generate a procedure in which the extension is based on the middle of the opening section of the phrase (*A⁴*), not heard in any of the analysed *radifs*. The analyses of Section 6.6 suggest ways in which the basic procedures outlined above can be used to generate new procedures in performance, supporting the idea that musicians learn principles from the *radif*, whether in the form of specific procedures, or in the form of tools for generating new procedures.

### 6.3 Phrase Structures and their Re-creation in Performance

Whilst most of the examples presented in Section 6.2 showed how similar compositional procedures could be applied to different musical material, those in Section 6.2.5 began similarly, but were subject to different developmental procedures: essentially the reverse process. This section will explore this aspect of the music further, focusing in particular on two types of phrase identified in the material under study.

Consider the following examples from the *darāmad* of *Segāh* (the first example already encountered in the previous section):

[80] *A¹* - Performance 9 - Shafeiān - *santur* - *darāmad* - 31'42''(A)
Whilst both phrases were constructed using procedure $A^1$, and shared the central e-koron pitch and the following five-note motif,$^{155}$

what followed was different, yet clearly related in overall shape. Indeed, these two phrases appeared to be variants of one another, or both to be variants of another phrase, since they had essentially the same phrase structure, whose outline might be represented as follows:

There would seem to be a close relationship between this phrase structure and that of extended and multiple extended repetition, since many (but not all) of the phrases presented in Sections 6.2.2 and 6.2.3 were shaped in this way. Further examples suggested that musicians use the above phrase structure as a basis for varying other aspects of the music, thereby generating an infinite number of individual phrases. Moreover, it would seem that musicians learn a number of such generalised "phrase structures" in the course of their training, which in performance may be varied and presented in different contexts. This will be discussed further below.

$^{155}$ At this stage, it is the shape of motivic patterns rather than the particular pitch at which they are found which is of relevance to the discussion. As such, these patterns are notated without any indication of specific pitch, as appropriate.
Whilst some phrases shared essentially the same developmental procedure as those above (as well as overall shape),

[82] A^{(0)} - Performance 15 - Andalibi - nei - darāmad - 32'30"(A)

[83] A^{(0)} - Performance 12 - Malek - santur - zābol - 32'51"(A)^{156}

others were related to the preceding examples, but were not subject to a specific developmental procedure:

[84] Performance 17 - Shahnāz - tār - darāmad - 33'08"(A)

There were also examples of the same basic phrase structure in different gushehs and using more complex types of extension:

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^{156} Whilst examples [80]-[82] were from the darāmad, example [83] was from zābol, possibly reflecting the relative importance accorded to this gusheh by Malek (see Chapter Four).
A number of other phrases in the analysed versions of Segāh shared the fundamental structure of examples [80]-[86], but used motivic "building blocks" other than the five-note motif heard above. For instance, examples [87]-[89] were performed by the same musician, and despite differences (such as being based on different pitches, according to the gusheh) were constructed using the same procedure and similar motifs and were closely related both to one another and to example [90], as well as to the preceding examples:
The following examples (also based in different gushehs), which shared the basic phrase structure outlined above and used similar developmental procedures (with the exception of example [91]), used one of two four-note motifs,

\[ \text{[88] A}^{(10)} - \text{Performance 9 - Shafeiān - santur - mokhālef - 34'50"(A)} \]

\[ \text{[89] A}^{(0)} - \text{Performance 9 - Shafeiān - santur - mokhālef - 35'11"(A)} \]

\[ \text{[90] A}^{(20)} - \text{Performance 28 - Shajariān - male voice - maqlub - 35'33"(A)} \]

\[ 157 \text{As can be seen in this example (and in a number of others), melodies may be constructed from more than one type of motif. In this analysis the most prominent motif has been taken as the criterion for categorisation.} \]
or variations of these two motifs (particularly characteristic of the santur player Shafeiān):

[93] A¹ - Performance 20 - Habibollāh Badii - violin - mokhālef - 36'54"(A)

158 The basic motif of this example was also heard in example [168] from dastgāh Māhur, see Section 6.7 below.
The use of the zir-bam technique of octave shifting in examples [95] and [96], and characteristic of santur renditions, particularly those by Shafeiân (as also heard in examples [80], [85], [87], and [88], from two different performances by this musician) should be noted.

Further examples of this phrase structure are presented below, the first two related to example [92] through the starting motif of the main phrase:
The phrases in examples [80]-[99] are presented in Figure 18, where they are arranged so as to highlight the various relationships between them, whether in terms of basic motif, central pitch, or developmental procedure. All twenty examples shared the same fundamental phrase structure, somewhat in the manner of a germinal "prototype", and this appeared to be used by musicians as the basis on which to generate a network of phrases, no two of which were identical. Just as musicians learn different developmental procedures through the radif and other musical experiences, so it seems likely that they build up knowledge of different phrase structures and their developmental possibilities. The examples in Figure 18 demonstrate how musicians can individually re-create the phrase each time that it is played (or sung) by making decisions regarding variable details of the phrase such as those listed above (developmental procedure, central pitch, basic motif, etc.). Thus, just as the identity of "Segāh" or "zābol" is not finite, but open-ended comprising not only all the musical statements that have ever come under

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159 The choice of example [80] as a starting point from which to compare other examples using the same phrase structure was simply one of convenience. Whilst one could have started from any of the examples in Figure 18, example [80] was chosen for its relatively straightforward structure.
Figure 18 - Variation of Basic Phrase Structure in Examples [80]-[99]
Figure 18 (continued)
Figure 18 (continued)
that name but also the potential for endless creation on the basis of the accumulated knowledge of what "Segāh" or "zābol" is, so the phrase structure seen in the above examples does not constitute a complete melody, but only the potential for a melody: a generative "proto-melody". Indeed, in a sense, this phrase structure functions as a formulaic pattern (see Section 1.4.2, Chapter One) which once learnt, allows rapid composition in the performance situation.

The phrase structure described above was presented by a number of musicians, and was heard in different gushehs, but was particularly characteristic of the santur player Shafeiān, and of the darāmad and mokhālef. Moreover, whilst various procedures were heard in the context of this phrase, there was a particularly close relationship with procedure A\textsuperscript{1} (including A\textsuperscript{1(0)} and A\textsuperscript{1(6)}). However, it was interesting that this phrase structure was absent from the analysed radifs of Segāh, with the possible exception of example [100] below. Since the radif is often regarded as representing an older tradition, it may be significant that many of those represented in the examples of Figure 18 were musicians of the younger generation (born after 1940), suggesting that this phrase structure exists (and circulates) within the current performance tradition, independent of the radif. This will be discussed further below. Whilst the phrase in example [100] might be regarded as similar in structure to those in Figure 18, it is in fact a characteristic forud (cadential) phrase and thus fulfils a specific function at this point in the music:

\[
\begin{align*}
&\text{[100]} \ D^{3(0)} \rightarrow \ D^3 \ \text{(based on A}^+1\text{ of phrase 1)} - \text{Radif 1 - Borumand - tār - kereshmeh bā muye}h - 39'46''(A) \n\end{align*}
\]

It seems likely that the following cadential phrases (the first two from the same performance) were directly derived from the phrase above (both musicians were pupils of Borumand; note the ways in which the same basic material was extended
differently in each case):

![Musical notation](image1)

[101] B₃ → B₅ - Performance 16 - Meshkātiān - santur - daramad - 40'11"(A)

![Musical notation](image2)

[102] B₅ - Performance 16 - Meshkātiān - santur - daramad - 40'33"(A)

![Musical notation](image3)

[103] B⁽³⁾(u) - Performance 23 - During - setār - forud of Segāh - 40'54"(A)

Cadential phrases such as those in examples [100]-[103] were not uncommon in the performances under analysis. The main question would seem to be the nature of the relationship between these phrases and those in Figure 18. Whilst there might appear to be a case for suggesting parallels between the two, it would be difficult to argue that examples [80]-[99] were derived directly from the radif example [100] (except perhaps for example [97], from the end of the daramad in performance 14), particularly given the otherwise total absence of this phrase structure from the analysed radifs.
Finally, it should be noted that the arch contour of the examples in Figure 18 is not specific to this phrase structure, but generally characteristic of much Persian music (as discussed in Chapters Four and Five). As such, examples [80]-[103] were related to other melodies such as the following from a performance by Borumand, which differed from them in other respects:

\[\text{E}^{3(0)} - \text{Performance 26} - \text{Borumand - tār - zābol - 41'26"(A)}\]

A second generative phrase structure was also identified in the course of analysis, and examples of phrases which shared this structure are presented below (examples [105]-[124]) and in Figure 19. The majority of these examples used one of two closely related motifs, (a) and (b) (or their variants):

(a) 
(b) 

The shape of this phrase structure can be outlined as follows,

As with the phrases discussed above, the internal details of the following examples were subject to continual variation, such that no two phrases were identical. Examples [105] to [108] all used motif (a), but were constructed using different developmental procedures:
[105] A^{10} - Performance 11 - Borumand - tār - zābol - 41'43''(A)

[106] B^{30} - Performance 6 - Shafeiān - santur - zābol - 42'03''(A)

[107] B^{3} - Performance 6 - Shafeiān - santur - mokhālef - 42'35''(A)

[108] B^{1} - Performance 1 - Lotfi - tār - mokhālef - 42'55''(A)
Whilst examples [106] and [107] (from different *gushehs* of the same performance) both used essentially the same developmental procedures (B3\(^0\) and B\(^1\)) (as well as having the same basic melodic material, but at different pitches), in the former the first twelve notes of the original phrase formed the basis of the extension,

![Original Phrase and Extension](image)

whilst in the latter, only the first four notes formed the extension,

![Original Phrase and Extension](image)

thus generating two different phrases from essentially the same "raw materials". Potential for variation thus exists in extracting more or less of the beginning, middle, or end of the original phrase to form the extension in procedures B\(^3\), B\(^4\), and B\(^5\). Moreover, the use of *zir-bam* in both of these examples (already noted in a number of other phrases by Shafeiān) provided a further variative dimension to the music.

The following examples (two from different performances by Shafeiān) shared the basic phrase structure of the examples above, but used different motifs, which were closely related to motif (a):  

![Motifs](image)

[109] D\(^3\) - Performance 18 - Pāyvar - santur - zābol - 43'24"(A)
Example [112] provided an interesting example of the development of a phrase. The first section was stated twice and was followed by a shorter section based on the phrase opening. This was then played in sequence, repeated, and led up to a climax on the upper b-flat and a descent to rest on g.

Comparison of the openings of examples [106], [111], and [112] (all in zābol, and from different performances by Shafeiān), demonstrates how a musician can vary the same melodic structure by using different motifs:
The generative phrase structure seen in examples [105]-[112] (using motif (a) and motifs related to (a)) appeared to be particularly characteristic of the playing of Shafeiān (santur), and of the gusheh zābol (starting from a-koron), the only exceptions being [107] and [108], both in mokhālef.

The following phrases shared the basic structure of the examples above, but used motif (b) or one of its variants as the motivic "building block" of the phrase:

[113] B⁴ - Performance 1 - Lotfi - tār - zābol - 45'20"(A)

[114] A³ - Performance 12 - Malek - santur - zabol - 45'43"(A)
1. Performance 1 - Shajān - male voice - mokhalef - 0'09" (Side B)
2. Performance 17 - Shahnāz - tār - darāmad - 46'04" (A)
3. Performance 11 - Golpāyegāni - male voice - mokhalef - 46'26" (A)
4. Performance 12 - Malek - santur - zābol - 0'47" (B)
5. Performance 1 - Shajariān - male voice - mokhalef - 0'09" (Side B)
6. Performance 12 - Malek - santur - zābol - 0'47" (B)
Examples [113] and [120] both used the same developmental procedure: B⁴. However, whilst in the former, motif (b) was the basic material from which the motif for the phrase extension was derived, in the latter, motif (b) (in varied form) was not heard in full until the phrase extension, where it formed the main material for the extension (as was the case in example [115]):

Examples [116] and [117] were both vocal renditions and used the same motif at the same pitch (both being in mokhâlef), but differed in the way in which the phrase was developed. These phrases were comparable with examples [107] and [108], also in mokhâlef (and with the main motif starting on the upper d), but using motif (a) rather than motif (b). The fact that examples [116] and [117] were both performed vocally is perhaps related to the climactic role played by this
phrase in vocal renditions of *mokhālef* (particularly in the melismatic *tahrir* sections). These examples also suggest that in certain contexts, motifs (a) and (b) may be interchangeable (note the use of motif (b) in the sequential descent from the climax of example [108]).

The following phrase was closely related to example [119], using the same variation of motif (b) at the same pitch (different *gusheh*), and a similar procedure, but with differences in the other motifs used:

![Musical notation](image)

[121] A^{10} - Performance 17 - Nāhid - *nei* - *muyeh* - 1'55''(B)

The use of motif (b) as part of the phrase structure in Figure 19 appeared to be particularly characteristic of the playing of Malek (*santur*). It should be noted that motifs (a) and (b) were also commonly heard in contexts outside the generative phrase structure presented above, such as in examples [5], [73], and [108] (second half) above, and example [146] below.

A number of phrases shared the same basic structure as the examples in Figure 19, but used motifs other than (a) or (b) (or their variants):

![Musical notation](image)

[122] D^{10} - Performance 16 - Meshkātiān - *santur* - *zābol* - 2'29''(B)
Whilst the overall phrase structure and use of motifs (a) or (b) provided a basis of unity, examples [105]-[124] (presented comparatively in Figure 19) demonstrate how one phrase structure can form the basis for the continual generation of phrases through the variation of different aspects of the music, in particular through the use of different types of developmental procedure. As in Figure 18, each phrase shared some feature(s) with one or more of the other examples, and the examples have been positioned in order to show this network of relationships. However, whilst no two phrases were identical, the examples were more closely related to one another than those in Figure 18, and in a sense more definable as "variations on a theme", notwithstanding the problematic nature of defining the "theme". As suggested above, it seems likely that through experiencing many different versions of the repertoire, musicians learn the generalised phrase structures represented by the examples in Figures 18 and 19, which then form the basis for further re-creation in improvised performance (perhaps as part of the "motor memory"). The phrase structure presented in Figure 19 was particularly characteristic of the gusheh zabol (thirteen of the examples were from zabol, four from mokhalef, two from the daramad, and one from muyeh), and of santur players (and, to a lesser extent, of tār players).

It is interesting to note that the majority of examples presented in this section
Figure 19 - Variation of Basic Phrase Structure in Examples [105]-[124]
Figure 19 (continued)
Figure 19 (continued)
were from the central gushehs of Segāh. This, together with the fact that no examples of the above phrase structures were found within the analysed radifs of Segāh would seem to support the findings of Chapter Five that radifs and performance of central gushehs share little in terms of specific musical material beyond aspects of mode and characteristic motifs. This raises important questions regarding the transmission of musical material in Persian music, and the role of the radif in this. Despite the importance of the performance tradition, as acknowledged in Chapters Four and Five, a musician who has not learnt the radif thoroughly (preferably in a number of different versions; see Chapter Two) is not considered to be adequately trained. On the other hand, if the radif plays such a central role in learning the basic repertoire, how does one explain a practice in which there appear to be limited correlations between radif and performance in terms of specific musical material (at least in the central gushehs)?

One possible explanation is that suggested in Section 6.2, that musicians learn compositional procedures in the context of specific melodic material within the radif, and that these procedures (and their underlying principles) are subsequently abstracted by musicians and applied to different musical material in improvised performance, thus generating new phrases. For example, many of the types of extension outlined in Section 6.2 were present in the radif, but often in the context of different melodic material from the examples heard in performance. Thus, rather than complete phrases being transferred directly from radif to performance (at least in the case of central gushehs), it would seem that individual aspects of phrases, such as compositional procedures or the basic phrase structures discussed in this chapter are transferred. The radif would thus seem to play an important role in providing musicians with a "pool" of material from which they are able to abstract techniques of improvisation and specific melodic material to use creatively in performance.

6.4 Extension Within Maqlub

However, as seen in Chapter Five, in the case of gushehs such as maqlub and hazeen which are more closely defined than the central gushehs, specific phrases are transferred directly from radif to performance, often forming part of the
than the examples above and which used the four-note motif of the main phrase.

Example [132] was closer to example [126] from radif 3, particularly in the use of extended repetition rather than multiple extended repetition (but with the extension based on the opening of the phrase), and in the concluding slow sequential descent to c by way of e-flat and d:

Thus, whilst examples [131] and [132] were performed by the same musician (and from the same performance, example [131] from an eshāreh to maqlub in a chahārmezrāb in the mokhālef mode, and example [132] from maqlub itself), the material appeared to be derived from different versions of the radif: one from example [125] and the other from example [126]. This clearly demonstrates that musicians may draw upon different sources at the time of performance. Moreover, the final two examples from maqlub show how elements from different radifs may be heard in the same phrase:

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Whilst the openings (and procedures) of examples [133] and [134] appeared to be derived from radif 1, the descending sequential passage was taken directly from radif 3. These two examples were in fact structured in essentially the same way, but the phrase extension in the former was based on the last four notes of the first section of the phrase, and in the latter it was based on the last three notes (note also the use of zir-bam in example [133]).

As discussed earlier, tracing direct lines of transmission between the radif of a master and the performances of his pupils is far from straightforward. Not only do musicians generally learn different versions of the radif during training, usually from different teachers, but they are also in receipt of a constantly changing performance tradition, and from which they may learn from musicians representing other lines of transmission. Whilst some musicians appeared to derive material from one or other of the radif versions presented, examples [131] and [132] from the same performance by Shafeiãn were interestingly based on different radifs. Similarly, examples [133] and [134] clearly combined elements from the different radif versions within a single phrase. Furthermore, there are of course other versions of the radif which were not included in this analysis and which may have provided the basis for some of the performance versions above. Given the complexity of the learning system outlined earlier, it is almost impossible to account for all of the sources from which a musician may draw in performance.

In performing this phrase within maqtab, musicians appear to make a number of decisions regarding various aspects of the music, such as whether to begin with the type of opening heard in both of the radifs (and in examples [127] and [128]),
and varied in examples [133] and [134],

or with that heard in examples [130]-[132] involving a leap from c to f rather than a scalar run from b-flat:

Following this, there are decisions such as whether to repeat the opening idea, or proceed to the phrase extension; where the phrase extension should start; which part of the first section of the phrase this extension should comprise; and whether the final sequence should be a gradual descent from e-flat to c (as in examples [126] and [131]-[134]) or a sequence constructed of shorter motifs (as in examples [125] and [127]-[130]). As with the phrase structures described in Section 6.3, this range of options enables musicians to re-create this phrase within maqlub at each performance, whilst maintaining its basic structure and identity (and on the basis of which it would be possible to generate hypothetical versions of the phrase). Given the time factor, it is unlikely that such decisions are made consciously at each performance, but over many years of playing (or singing) this music the various options become embedded in the musician’s motor and aural memory (see Section 6.8.2 for further consideration of the motor aspects of musical performance).

A number of phrases similar to those discussed above, but in gushehs other than
maqlub (and therefore generally based on different pitches), were identified in the course of the analysis. For example, the following phrases from hazeen (the first two from the same radifs as examples [125] and [126]) all used procedure B⁴ and were similar to the maqlub examples, but were based a fourth lower. Note the extension of the main part of the phrase in example [135], in which the three-note motif was repeated at a lower pitch level, and also the use of the zir-bam technique in examples [136] and [137], both played on the santur:\footnote{The role of this phrase in hazeen was discussed in Chapter Five.}

\footnotesize{
\begin{align*}
\text{[135] } & B^4(\delta) - \text{Radif 1 - Borumand - tūr - hazeen - 7'}28''(B) \\
\text{[136] } & B^4 - \text{Radif 3 - Tehrāni - santur - hazeen - 7'}50''(B) \\
\text{[137] } & B^4 - \text{Performance 16 - Meshkātiān - santur - hazeen - 8'}10''(B)
\end{align*}
}

The following phrase, taken from the forud of Segāh in a performance by Borumand, was very similar to the above phrases from hazeen, including example [135] from radif 1:
This suggests that the phrase in example [135] (which embodies procedure B⁴ within it) is learnt as part of the relatively "fixed" structure of the radif in the gusheh hazeen, after which it may be used in different contexts (including different gushehs) in performance, as in example [138]. However, it is interesting to note that example [138] was in fact closer to examples [136] and [137] than to example [135] from the radif which Borumand himself taught.

Examples [125]-[137] show how extension (and in particular procedure B⁴) formed an integral part of maqlub and hazeen in a number of analysed radifs and performances. Indeed, it was suggested in Chapter Five (Section 5.2.4) that the appearance of this phrase in similar positions in both gushehs may be related to a particular function of the phrase, such as building tension towards the end of the gusheh. Moreover, as mentioned in Chapter Five (Footnote 135), the same phrase, embodying the same procedure, was found in the gushehs hozān and pas hesār in radif 4, and at the end of mokhālef in radif 5 (and was also found in the descent towards the end of maqlub in radifs 2 and 6, but at the same pitch level as the hazeen examples). In the process of learning this phrase (in various gushehs and at various pitch levels) in the context of the radif, then, musicians seem to internalise not only the procedure of extension, but also the basic shape and consequently the physical sequence of movements involved in playing the phrase, which can then be used generatively in performance, and in the context of other gushehs.

For example, the following three phrases from performance versions of the darāmad and mokhālef, shared the same basic shape and movement patterns as

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162 In the absence of hazeen in this particular performance, the phrase may possibly be a brief allusion to the gusheh in the final forud section, which follows mokhālef.

163 The reader is referred to Chapter Five, Sections 5.2.3 and 5.2.4, for further examples of this phrase structure in maqlub and hazeen.
the preceding examples from *maqlub* and *hazeen*, as well as the three-note motif heard in several of the above examples (but based on different pitches), whilst using different types of phrase extension:

[139] B⁴ - Performance 18 - Pāyvar - *santur* - *daramad* - 8'47''(B)

[140] A³⁽v⁾ - Performance 23 - During - *setār* - *forud of mokhālef* - 9'11''(B)

[141] B⁴⁽ii⁾ - Performance 16 - Meshkātiān - *santur* - *mokhālef* - 9'25''(B)

As noted in the discussion of *maqlub* and *hazeen* in Chapter Five, the pattern of phrase shape heard in the above examples was especially characteristic of *santur* renditions. In particular, Pāyvar commonly used this pattern in his playing, as seen in examples [142]-[144] below (example [139] is presented again for purposes of comparison):
In examples [143] and [144], the descending three/four-note motifs were at the same pitch level as heard in the hazeen examples above, and indeed it is possible that in performance 18 (example [144]) this phrase functioned as a substitute for hazeen in the forud after mokhālef (as suggested for example [138]; hazeen was not heard in either of these performances). The following example demonstrates another melodic pattern characteristic of the playing of Pāyvar, which was related
to (and possibly derived from) the examples above, but without a pause between the internal sections of the phrase:

\[ \text{[145] A}^{(0)} \text{ - Performance 17 - Pâyvar - santur - mokhâlef - 10'48"(B)} \]

Unlike the phrases discussed in Section 6.3 (mainly from the central gushehs of Segâh) in which developmental procedures and melodic material learnt from the radif appeared to be abstracted and used in different contexts in performance, in gushehs such as maqlub and hazeen such procedures were embedded within the very phrases which formed part of the central core of the gusheh. Melodic material and procedures were therefore maintained as a unit from radif to performance. Thus, as already suggested in Chapter Five, there seem to be important differences in the creative processes involved in the performance of gushehs such as maqlub and hazeen on the one hand and the more central gushehs on the other, the former including a higher density of elements which are essential to the identity of the gusheh. These different processes perhaps correspond to what During has referred to as "strategic improvisation" and "creative improvisation" (1987a:23) and mentioned in Chapter One (Section 1.3.4). Whatever the degree of creativity involved in the performance of maqlub and hazeen, however, these gushehs embody procedures such as extension within their structures, and thus represent an important means by which musicians learn basic principles of composition with which to generate new phrases.

6.5 Other Developmental Procedures: Sequence and Contraction

Among the various types of developmental procedure in Persian classical music outlined at the beginning of this chapter, it has only been possible to examine extension in any detail. However, a number of observations made with respect to extension were also found to apply to other procedures such as sequence and
contraction, and these procedures will therefore be considered briefly in this section. The structure of sequence, in which a musical idea is repeated at different pitch levels, is deeply embedded in Persian music, and many of the examples of extension presented so far in this chapter have included sequential patterns as part of the phrase (moreover, such patterns are integral to the various types of transpositional extension described in Section 6.2.4). Not only does sequence embody the tension between repetition and variation, between two musical ideas which are the same and yet different, but it is also an important means by which the music moves from one pitch level to another. In the course of the present analysis, several hundred examples of sequence were extracted from both performances and *radifs* of *Segāh*, and whilst limits of space preclude detailed discussion of these, a few points will be made regarding the main types of sequence identified.¹⁶⁴

Sequences found in the analysed versions of *Segāh* can be broadly divided into two main types: that in which a short motivic pattern of between two and five notes was played or sung at progressively higher or lower pitch levels (motivic sequence); and that in which a complete phrase was presented in sequence (phrase sequence). In addition, motivic sequences were also heard as part of phrase sequences in the manner of a "sequence within a sequence". Phrase sequences involved either exact or varied repetition of the phrase at each pitch level ("stage"), the latter being more commonly heard, particularly in longer phrases in which there was greater scope for variation. The general pattern which emerged from the analysis of phrase sequences was that the longer the initial phrase, the greater the range of possible variation, and the fewer the number of stages at which the phrase was heard (phrase sequences generally comprising two or three stages). In comparison, motivic sequences tended to comprise more stages than phrase sequences and the motifs were less subject to variation from one stage to another, although different types of motif might be heard within the same sequence. In terms of direction, sequences based on successively lower pitch levels ("descending sequences") were more commonly heard than ascending sequences, there being relatively few examples of the latter, particularly in the case of phrase sequences (and the longer the initial phrase of a phrase sequence,

¹⁶⁴ Since, as with extension, there is no Persian word for this compositional device and no indigenous categorisation of the different types, the following classification is again that of the author.
the less likely it was to be heard as an ascending sequence).

Given the number of potentially variable elements in the structure of a sequence - whether a motivic sequence or a phrase sequence; the number of stages; whether or not the motif/phrase is to be varied; the direction of the sequence - and the possibility of these being combined creatively, a large number of choices were available to musicians for the generation of sequential patterns. Certainly, the analysed *radifs* and performances of *Segāh* were both permeated with sequences. Whilst a number of sequential passages were transferred directly from *radif* to performance, sequence (like extension) appeared to represent a particular technique which musicians can apply to different types of musical material in the creation of phrases not found in the *radif* and not heard previously in performance. What is important, therefore, is the principle of sequence as a compositional tool, independent of any specific musical material.

The same point applies to contraction. Although heard less frequently than extension and sequence, a number of examples of contraction were identified in the body of music under analysis, and seemed to form two main categories: one involving the shortening of phrases (that is, the reverse of simple extension), and the other the shortening of motivic patterns within the phrase. An example of the first type of contraction was seen in example [121], in which each of the three sections of the phrase became progressively shorter, with an extension to a climax on the third section:

![Example 121](image)

[121] Performance 17 - Nāhid - *nei* - *muyeh* - 1'55"(B) - (A\textsuperscript{10})

The second type of contraction was particularly common in certain types of multiple extended repetition in which each extension of the phrase comprised successively shorter motifs. This highlighted an interesting relationship between
phrases which were extended through the repetition of certain parts, whilst those parts and their constituent motivic patterns became progressively contracted. The following examples (some of which have been presented in previous sections) demonstrated similar principles of motivic contraction (examples [48] and [49] taken from different performances by the same musician):

[48] Performance 1 - Lotfi - tār - muyeh in forud of Segāh - 19'36''(A) - (B² -> B³)

[49] Performance 7 - Lotfi - tār - zābol - 19'59''(A) - (B⁴[0]) -> B⁴

[146] Performance 10 - Majd - tār - mokhālef - 11'06''(B) - (B²[0]) -> B²
Further examples of contraction as part of extended repetition (A^3) and multiple extended repetition (B^3), in which the phrase extension was generally formed from the contraction of the opening phrase or section of the phrase, were seen in Sections 6.2.2 (examples [16], [17], [18]) and 6.2.3 (examples [32], [33], and [34]).

The examples above demonstrate how one (or more) procedure(s) can be found in the context of another. Thus, in example [146], a two-stage (short) phrase sequence (at the beginning of the example, and repeated) and motivic contraction were both heard within a phrase constructed on the basis of a type of multiple extended repetition (in which the first extension was formed from a contraction of the original [sequential] phrase). As with extension and sequence, musicians seem to learn the principle of contraction, which can then be applied in different contexts. It should be noted, however, that no examples of contraction were found in the *radifs* of *Segâh* under study, suggesting that musicians perhaps learn the principle of contraction through musical experiences outside the *radif*, or even that the principle can be generated on the basis of knowledge of other procedures within the *radif* (although there may of course be examples of contraction in other *radifs* of *Segâh*, or indeed in other *dastgâhs*).
6.6 Composition in Context

The analyses of this chapter have suggested that performers internalise the developmental procedures or compositional tools of the music through learning different versions of the radif and through extensive listening and playing, which together comprise the training of the Persian classical musician. When, after years of training, the musician is ready to embark on creative improvisation, he uses these procedures and the learnt musical material as a medium through which to re-create the repertoire at each improvised performance. In order to illustrate the procedures discussed above in the context of a complete gusheh (rather than as isolated phrases as in Sections 6.2-6.5), this section will examine one radif and one performance version of the gusheh mokhâlef in detail. It seemed appropriate to select a gusheh whose performance involves relatively extensive improvisation, and whose general characteristics have already been discussed. The versions of mokhâlef which will be discussed in detail in this section are taken from performance 10 and radif 1 (Examples 5 and in Appendix Four). Whilst the analyses in Chapter Five focused on the essential elements of the gusheh - those on which the identity of mokhâlef rests - what is of interest in the present section are the details of individual composition: the procedures which are embedded within the radif and which are applied in performance in the process of re-creating mokhâlef within the limits outlined in Chapter Five. For reasons explained earlier, drawing correlations between different versions of Segâh by musicians connected by way of teaching is not straightforward, and the value of doing so is somewhat questionable. Nevertheless, in this case it is worth noting that both Borumand (radif 1) and Majd (performance 10) studied with the prominent musician Darvish Khân (see Figure 2, Chapter Two), the main difference being that Borumand also learnt with a number of other teachers in the course of his training.

Mokhâlef in radif 1 comprised five main sections (or extended phrases), the first of which began with the characteristic emphasis of c, descent to g, and ist (medial pause) on a-koron. An ascending sequential passage, which (as noted in

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165 As explained in the previous chapter, the sectional analysis presented here is largely that of the author, and is based on a number of criteria (see Chapter Five, Footnote 124). As in Chapter Five, the analyses should be read in close conjunction with the transcriptions of mokhâlef in Examples 5 and 7,
Chapter Five) is often heard at the opening of mokhâlef,

provided a link to the next section (b). The opening phrase of section b explored the area between b-koron and d, and was repeated with little variation. The third section (c) started with the following idea,

which was repeated, and the pitches a-koron, b-koron, and c from this idea were then used as the basis for procedure C³ (including sequence within its structure) in which the final statement was omitted, and replaced by a motif derived from the opening of section c:

Section d began with an example of simple "vertical" extension (outlined in Section 6.2.1 above), which led into a descending three-stage phrase sequence (based on the motif from the beginning of the section, and which itself included a two-note motif sequence) with no variation from one pitch level to another:
The link between this and the final section (e) was the rising sequential passage heard between sections a and b. Section e comprised three consecutive extended repetitions (seen above in examples [77] and [78]), starting with procedure $B^3(0)$ moving into $B^4(0)$,

\[152\] 12'31"(B)

and followed by two almost identical statements of procedure $B^1$,

\[153\] (first statement) 12'55"(B)

each of which ended with a descending sequence:

\[154\] 13'17"(B)

In terms of specific procedures then, *mokhālef* in *radif* 1 included the following: the repetition of motifs; the repetition (more or less exact) of phrases; ascending and descending motivic and phrase sequences; simple extension; and procedures
B¹, B³⁽¹⁾, B⁴⁽¹⁾, and E⁳. These procedures form an integral part of the structure of this gusheh, are learnt by musicians, and thus become part of the "stock" of compositional tools for creative improvisation.

Performance 10 also comprised five main sections (although not directly comparable with those in radif 1; each of these sections comprised shorter phrases), also beginning with an emphasis of c (in the lower octave), a descent (but no rest on g) to f and an ascent to rest on c again (but without the ascending sequence heard in radif 1). The next phrase, which was essentially a repetition of the following three-note motif,

\[
\text{[155] 13'35"(B)}
\]

before moving down to rest on a-koron, was different from, but might be regarded as comparable with the exploration between b-koron and d heard in the second section of radif 1. The next phrase used the following idea (a rising two-note motif sequence),

\[
\text{[156] 13'43"(B)}
\]

as the basis for procedure B³, which included a partial sequence towards the climax of the phrase, based on the motif just stated,

\[
\text{[157] 13'50"(B)}
\]

and from which a three-note motif was derived and repeated:

\[
\text{[158] 13'56"(B)}
\]

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This was followed by another partial sequence and a rest on c at the end of the phrase:

![Musical notation](image1)

[159] 14'03"(B)

The second section (b) was in some respects a variation on the first, starting again with an emphasis of c (now in the upper octave; leaping from the g below), descent to f, and ascent to c as at the opening of the first section. The next phrase was based on the following motif,

![Musical notation](image2)

[160] 14'14"(B)

and used procedure B¹ in exploring the same pitch areas as the second phrase of section a. The result was a tahrir pattern commonly heard in mokhâlef (see Example 9b, Chapter Five), after which the extension of the phrase was played in sequence:

![Musical notation](image3)

[161] 14'20"(B)

The third section (c) returned to the lower octave range of the opening, and was based on material from the gusheh masnavi (in the mokhâlef mode - see Chapter Four). The opening phrase of the section included repetition,

![Musical notation](image4)

[162] 14'35"(B)
and sequence,

and this was followed by a phrase which started with an idea originally heard in section a (see example [156] above). This idea was repeated and led into a type of extension (once again showing how the same material can be developed in different ways):

Section c ended with a restatement of the idea in example [156] and a medial pause on a-koron. The fourth section (d) returned to the upper octave once more, starting with a short sequential phrase, which was repeated in slightly varied form:

The second half of this phrase then formed the basis for a tahrir using two consecutive statements of procedure B² (B²⁰ → B³), in which there was a progressive contraction of motifs (see example [146] in Section 6.5):
The final section (e) was largely an exploration of the area between g and b-koron (the upper c and the lower f also stated briefly) before reaching a final rest on g at the end of the gusheh.

Whilst performance 10 shared the use of motif repetition, phrase repetition (exact), ascending and descending motivic and phrase sequences, simple extension, and procedures B¹ and B³ with radif 1, there were also examples of varied phrase repetition, contraction, and procedure B². Moreover, it was evident that performance 10 explored the potential of the music to a much greater extent than radif 1, in which straightforward repetition of material played a more central role. Take, for example, the imaginative development of the phrase in section a of performance 10 which began with example [156] as part of procedure B¹, moved into a partial sequence, and then used part of the sequence in a repeated motivic pattern. In other words, there is the creative combination of a number of procedures (originally from the radif) within the same phrase, and this generates a new procedure not found in the radif. Similarly, section d of performance 10 began with a two-stage descending sequence of which the second half of the second stage was then taken as the starting point for multiple extended repetition (including contraction of motifs).

What is clear is that the musician has available a set of procedures which may be used to develop material in different ways, or combined creatively to generate new procedures. Whilst radifs and performances share essential aspects of the music - the defining elements of a gusheh, the acceptable limits of variation, specific compositional procedures, etc. - the main difference suggested by this brief analysis of mokhālef is the creative freedom of the performing musician in combining procedures and exploring the potential of musical ideas as basic as the following:

A possible explanation for this apparent difference may lie in the specific functions of radif on the one hand and performance on the other. It seems likely that through the very repetition inherent in its structure, the former instills the essential elements of the music which students need to know. Indeed the
importance of repetition in this music was stressed at the beginning of this
chapter, and repetition has been seen in many of the examples presented in the
course of the chapter. The teaching role of the radif is also evident in the
straightforward manner in which procedures are presented, without the creative
combinations which are found in performance. However, after a number of years
of learning the radif and listening to other performers, the musician starts to
explore the potential of the music in improvised performance, in order to present
the audience with new insights into the music - something which is expected of
him, and which is part of the function of the performance - hence the creative
combinations of procedures heard in performance 10.

6.7 Procedures in Māhur

If extension and the other procedures discussed in this chapter are generally
characteristic of Persian classical music, then one would also expect to hear them
in dastgāhs other than Segāh. As part of this study, therefore, four radifs and
fourteen performances of dastgāh Māhur were analysed for purposes of
comparison with Segāh. This analysis showed that many of the procedures
identified in Segāh were also to be found in Māhur. As might be expected, these
procedures were generally heard in the context of material specific to Māhur, but
there were also some interesting examples which overlapped with Segāh in the use
of melodic material as well as procedures. For example, compare the following
phrases:

[168] Performance 30 - Alizãdeh - tār - Māhur - darāmad - 16'14"(B) - (A^\text{167})

166 The reader is referred to Appendix One for details of the versions of Māhur analysed. For a
description of this dastgāh, see Zonis (1973:82-84), During (1984a:120-121), Nettl (1987:65-75), and Farhat
(1990:89-99).

167 As mentioned in Footnote 123 (Chapter Five), the examples from Māhur presented in this section are
transcribed with (middle) c as the shāhêd of the darāmad (and the actual pitch of the shāhêd of the
darāmad) is indicated in brackets at the beginning of each example.
The basic material for these two phrases was the same, but in different modes according to the dastgāh, and extended differently in each case. It was interesting that the generative phrase structure on which the above examples were based was not heard in any of the analysed radifs of Segāh or Māhur, although it is heard commonly in performances. An example of the same basic phrase structure is given by Sādeghi as part of the tahrir at the end of gusheh Sayakhi in āvāz-e Abu-Atā in the radif of Sabā (1971:88; the extension is different from both of the above examples), but is not found in this gusheh in the radif of Borumand, who was the main teacher of both Meshkātīān and Alizādeh. This suggests that whilst phrases structures such as those discussed in Section 6.3 (to which the above phrases are related) appear to exist within the performance tradition independent of the teaching radii; others (such as that above) may be heard in the radii; but over many years of playing become part of the performer’s "store" of musical patterns and formulae, to be used in performance regardless of the dastgāh.

In terms of phrases which were specific to Māhur, the opening of the gusheh feyli provided some interesting examples of different ways of extending the same basic material. Thus, feyli opened in the following way in a number of versions of Māhur (radifs 1, 3 (two versions), and 7, and performance 35), using procedure B):

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168 A number of the examples presented in this section were heard in several of the analysed versions of Māhur. In cases where different renditions presented identical or very similar versions of phrases, only one has been notated here and the others simply listed. It should be understood, however, that these different versions may include minor variations.
In the following example, however, the characteristic scalar ascent and emphasis of g was subsequently developed differently:

Thus, whilst in example [170] the main part of the phrase was based on the following four-note motif from the opening,

and the phrase extension began after the sustained g, in example [169] the sustained g was itself part of the multiple extended repetition. In the following example, [171], the opening motif of feyli was extended using the last three pitches of the first section of the phrase (B⁴),

reaching up to a climax on a (as in the other examples) using the same motivic pattern as heard in example [170],
and descending once more to rest on c:

\[ \text{[171] Performance 31 - Alizädeh - tär - Mähur - feyli - 17'26"(B) - (B\textsuperscript{4})} \]

In all three examples of the opening of feyli, tension was built up using repeated motifs in the melodic area between e and g, as follows:

\[ \text{[172] Radif 2 - Karimi - male voice - Mähur - feyli - 17'57"(B)} \]

The opening of feyli in the vocal radif had the same scalar ascent and emphasis of g as the above examples, but the phrase was not developed using any particular developmental procedure:

However, towards the end of this (relatively short) gusheh in radif 2, there was a phrase which had close parallels with example [169] (including the same procedure) from radif 1 (and also with example [170], in the motifs used):
This points to a certain flexibility in the use of material, such that essentially the same phrase in the same gusheh was heard in different positions in different radifs. The examples of feyli also show that whereas Talāi (performance 35) chose to play the opening of the gusheh as learnt from the radif, Shajariān and Alizādeh (performances 34 and 31) both chose to use their learnt knowledge creatively in performing the gusheh opening (note that all three musicians learnt with some of the same teachers, see Teaching Genealogy, Figure 2, Chapter Two).

Examples [168]-[171] and [173] show clearly that the same kinds of extension heard in Segāh were also to be found in Māhur. Moreover, following on from the discussion in Sections 6.3 and 6.4, they provide further examples of the ways in which the same basic material can be extended differently, and the ways in which specific procedures (B' in examples [169] and [173]) may be embedded within the structure of the radif. Example [174] shows another developmental procedure, C', embedded within the radif, in this case towards the beginning of gusheh dād. C' was followed by a further extension and sequential descent:
This phrase was also found in radif 1, and in performance 36 where it was directly followed by another phrase using procedure B\textsuperscript{3}. The latter phrase also appeared in performance 35 (although not following on from the phrase in example [174]):

\[\text{Radif 2 - Karimi - male voice - Māhur - dād - 19'47"(B)}\]

Whilst the phrase in example [175] was not found in the above form in any of the radifs under study, suggesting that Talāi and Tului learnt this phrase through musical experiences outside the radif, there was a short passage in the vocal radif which was possibly related to the above material:

\[\text{Performance 35 - Talāi - tār - Māhur - dād - 19'24"(B) - (B\textsuperscript{3})}\]

This suggests that in performance, musicians may derive the musical material and the developmental procedure of a potential phrase from their knowledge of the radif, but that these may be taken from different contexts and/or versions of the radif. Thus, it is possible that the musical material of example [175] was derived from the vocal radif (example [176]), whilst the way in which this material was developed was derived from examples of procedure B\textsuperscript{3} learnt in other contexts/versions of the radif. One such example of procedure B\textsuperscript{3} within the radif was the characteristic opening of the gusheh khosravānī in which the opening sequence within a sequence (repeated) was subsequently extended on the third statement using procedure B\textsuperscript{3}, and leading into a final descending sequence:
This opening phrase was part of the essential core of khosravâni and was subject to minimal variation in the versions of Māhur under study. It should be noted that as in Segāh, there is a hierarchy of gushehs in Māhur: central gushehs such as the darâmadd, feyli, and delkesh are subject to greater variation from one version to another, whilst gushehs such as dād are generally shorter and less subject to variation. The shortest and least varied gushehs in Māhur include khosravâni.

In comparison with Segāh, there was a greater unity of material in the examples of Māhur analysed. This may be a characteristic of the dastgāh, which perhaps allows less creative licence than Segāh. Thus, for example, the closeness of Māhur to the western major mode (and the resulting associations with western music) may have been an important factor in its popularity with composers of written compositions which have become common in Persian music, and it is possible that this has had some influence on ideas regarding the creative nature of the musical material of Māhur. However, it might also be that the particular performers represented in the versions of Māhur under study tended to diverge less from the radif in performance than those in the examples of Segāh (although there was clearly some overlap in the performers represented). For example, the two performances of Māhur by Dāriush Talāi were characterised by their closeness to the radif versions (particularly instrumental) in comparison with other performances. Whilst the fact that both of these recordings were released by European recording companies for a non-Iranian audience may have had some bearing on the renditions (and whilst there were no accessible recordings of Talāi performing Segāh with which to make comparison), evidence from other dastgāhs
does seem to suggest that playing relatively close to the *radif* is a characteristic of performances by this musician.

Despite the necessarily limited exploration of *Māhur*, the above examples have suggested that many of the procedures described for *Segāh* also form an integral part of at least one other *dastgāh*. They have also provided further evidence of the complex relationship between *radif* and performance, and have shown a number of ways in which similar musical material can be developed differently, and vice versa.

### 6.8 General Considerations

#### 6.8.1 *Radif Tradition, Performance Tradition*

The analyses of this and the preceding chapters have indicated that important aspects of the music, such as the ordering and relative importance (and hence length, degree of variation, etc.) of *gushehs*, and the ways in which the identity of a *gusheh* is established and maintained, appear to be learnt through the *radif*. In addition, it seems likely that the very structure of the *radif*, with its many examples of developmental techniques heard in the context of different melodic material, teaches musicians many of the rules of variation. Indeed, as suggested earlier, this may partly explain why, in the teaching situation, little else is transmitted to pupils beyond the musical material of the *radif*. Moreover, since a musician generally learns a number of different *radifs* in the course of his training, he will also learn different ways of developing the same melody (see examples [125] and [126] in Section 6.4, for two different *radif* versions of the same phrase in *maqlub* using different developmental procedures). Indeed, even within the same *radif*, there are examples of different ways of developing the same material. Thus, it can be argued that the rules of re-creation are embedded within the music itself, supporting the suggestion made in earlier chapters that music embodies the rules for its own renewal.

However, as discussed in Section 6.3, in the case of the central *gushehs*, the analyses showed surprisingly little direct correlation between *radifs* and
performances in terms of specific melodic material. In drawing comparisons between radifs and performances, there is of course, always the difficulty of identifying a precise framework upon which any one performance is based, since that framework will comprise an amalgam of the different versions of the radif learnt during training. Moreover, there is also the continual dynamic interchange which takes place between the personal framework of a musician and musical experiences outside of the radif, a musician adding to his framework and store of re-creative patterns and ideas as a result of feedback from his own performances and those of other musicians (see Figure 1, Chapter Two).

Comparison of Borumand's radif of Segāh with three of his own performances, for example, indicated a number of differences in the use of material, some of which were noted above (and also in Chapters Four and Five). Thus, for example, the phrase in example [135] from hazeen in radif 1 was also heard in one of Borumand’s performances, but in the forud of Segāh (example [138], see Footnote 162). Thus, material which appears to be directly derived from the radif, may in fact be heard in the context of a different gusheh in performance. Moreover, it was interesting that in terms of the specific musical material, example [138] was closer to examples [136] and [137] from a different radif and performance of hazeen respectively, than to example [135] from radif 1, in which the phrase was further extended (see Section 6.4 above).

Similarly, whilst motif (a) was used as the basis for the main section of the phrase in examples [105] (Section 6.3) and [178] (below), both from performance 11 by Borumand, this motif was not found at all in Borumand’s radif (although it is found in some of the other radifs under study). As such, it clearly constituted part of Borumand’s store of musical ideas, either learnt from one of his teachers, but not included in his own radif, or from the performance tradition, independent of the radif:

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160 Performances 11, 25, and 26, the latter two made available courtesy of Professor Bruno Nettl.

170 The appearance of this motif in radifs 2 and 6 is interesting, given that Sabā and Borumand are linked through their both having been pupils of Darvish Khān, and similarly Borumand and Karimi were both taught by Hājī Aqā Mohammad Irānī (see Figure 2, Chapter Two).
These (and other) apparent differences between Borumand's performances and his radif are all the more interesting given his own ideas regarding the relationship between radif and performance (see Chapters Two and Three) and the influence that these ideas have had on succeeding generations of musicians.

Further evidence of the ongoing performance tradition as a source of musical material for musicians was suggested in Section 6.3, in which the phrase structures in Figures 18 and 19 were only heard in the analysed performances of Segāh, and were absent from the radifs (although it was suggested that example [100] - from radif 1 - might be related to the phrases in Figure 18). One possible explanation for this in the case of Figure 19 may be related to the common occurrence of this phrase structure within performances of zābol. The analyses of Chapter Four suggested that zābol is gaining in prominence (and hence length) within the performance tradition of Segāh where it would appear to be taking the place of muyeh as the third most important gusheh of Segāh, muyeh being prominent in the radifs and in the performances of older musicians. The expansion of zābol presumably requires greater development of musical material, which is however notably absent from the radif, where zābol is generally short and repetitive. Thus, it is possible that phrases such as those in Figure 19 have developed in direct response to this need for greater development of material in a gusheh which is growing in size and prominence. As such, the phrase structure in Figure 19 may be perpetuated through the performance tradition of zābol, independent of the radif, which has remained relatively unchanged.

Similarly, the melody heard in examples [30] and [168] (developed differently) was absent from the analysed radifs. Moreover, the fact that the first was heard in Segāh and the second in Māhur suggests that this phrase has become part of
the musicians' store of musical ideas, available to be used in different dastgâhs.\textsuperscript{171} Another example was the following motivic pattern, which was heard in performances by two musicians not connected by way of teaching (Malek and Nâhid, from examples [11] and [121] above), but which was absent from the analysed radifs, suggesting that it too exists within the performance tradition:

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{motivic_pattern.png}
\caption{Motivic Pattern from Malek and Nâhid's Performances}
\end{figure}

The analyses of Mâhur revealed similar patterns to those found in Segâh. For example, the following was heard at the end of example [169] (radif 1),

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{mahur_example.png}
\caption{Example from Mâhur's Performance}
\end{figure}

and in a similar position in other versions of feyli. However, the same musical idea was also heard towards the end of gusheh dâd in performance 32, even though it was not part of this gusheh in any of the radifs:

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{gusheh_dad.png}
\caption{Gusheh dâd Example from Performance 32}
\end{figure}

[179] Performance 32 - Lotfi - setâr - Mâhur - dâd - 20'47"(B) - (A\textsuperscript{1})

Similarly, the phrase in example [175], heard in performances 35 and 36, but in none of the analysed radifs, was probably derived from the performance tradition. However, the material seemed to be related to example [176] from the vocal radif, pointing to another possible source of the phrase. These examples show that in Mâhur, as well as in Segâh, there is a certain flexibility in the use of

\textsuperscript{171}Whilst the sharing of this phrase in performance might be explained by the fact that Meshkâtiân and Alizâdeh both learnt with Borumand, this is unlikely, since the phrase was absent from Borumand's radif, both in Segâh and Mâhur.

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material, with the same melodies (or motifs) heard in performances but not in radifs (and vice versa), or in different gushehs.

Two main points regarding the role of the radif are suggested by the analyses of this chapter (and follow on from those of the preceding chapters). Firstly, the radif would seem to function less as a strict framework for performance (although it may do so in the case of gushehs which have a pre-determined structure or in renditions by musicians who may choose to perform close to the radif), and more as a subtle device to teach musicians aspects of the music such as certain types of melodic movement, generative phrase structures, developmental procedures which can be extracted and re-applied in different contexts in performance, the core elements of each gusheh, the limits and rules of variation in each gusheh, as well as basic motivic and melodic patterns, and finally as a general source of inspiration. Secondly, it is clear from the preceding discussion that musicians learn a great deal from the performance tradition as well as from the radif, and that they draw upon both of these in the process of improvisation. Indeed, it is possible that procedures and patterns which are today only heard within the performance tradition may have originally derived from the radif, generated by musicians on the basis of patterns and procedures within the learnt repertoire (See Section 6.6). It should be remembered that the radif in its present form probably evolved from what were originally performing repertoires (see Chapter Two), and that procedures found in the present-day radif were therefore at one time part of an ongoing performance tradition. The use of examples from the radif by Sadeghi (1971) and Zonis (1973) to illustrate creative procedures has already been noted.

Each rendition of a dastgāh draws from and contributes to the re-creation of the performance tradition, enriching it, changing it slightly, and providing ideas which other musicians may choose to include in their own improvised performances. Thus, the performance tradition represents the countless creative contributions of many individuals over time, "... inherited from thousands of unknown talents and geniuses before ..." (Grainger, cited in Balough 1982:69, quoted in Blacking 1987:45, see Chapter One). In comparison, the radif remains relatively static (for reasons outlined in Chapter Two), although it may have formerly played a role
closer to that of the present-day performance tradition. In terms of creative procedures, whilst there was a basic unity in the techniques of musical composition, the main difference between radifs and performances of Segâh was in the wider creative scope open to the improvising musician. This relates to similar points which have emerged from the preceding chapters, such as the wider range of organisational variation (Chapter Four) and the wider range of variation of musical material (Chapter Five) heard in the analysed performances as compared with the radifs.

6.8.2 Spatio-Motor Factors

In the process of learning the radif over many years and through other musical experiences, a musician builds up a store of characteristic patterns, both aural and physical, and the latter become embedded into the motor memory. From the overall shape of the musical phrase through to the detailed motivic patterns of the music, motor memory is an important means by which musicians learn to perform in any musical tradition and by which that tradition is regenerated. Moreover, given the speed with which the improvising musician has to make performance decisions, motor memory enables the musician to access certain types of information, allowing the relatively rapid re-creation of phrases in performance. An important aspect of motor memory is the interaction between the body of the musician and the musical instrument. Indeed, as discussed in Chapter One, by encouraging or inhibiting certain types of physical movement, musical instruments play an important role in the development of motor memory.\footnote{Whilst this discussion focuses on instrumental music, such factors may also be relevant to the voice, although relatively little research has been carried out into the motor aspects of vocal production.}

Consider, for instance, examples [77] (Section 6.2.5), [180], and [181] (below), the first from radif 1, and closely imitated by During in performance 23 (although he develops the original part of the phrase in a slightly different way):
Whilst the movement pattern of example [77] was only heard in mokhâlef in the radif, example [181] shows how During applied this same movement pattern in the context of a different gusheh and at a different pitch level:

The development of examples [180] and [181] was slightly different, but both phrases were clearly derived from the movement pattern within the radif, and in both cases, the final descending sequence was very similar to that of the radif. This suggests that the patterns of movement required to produce the sounds heard in example [77] represent a "certain way of moving on the instrument" (in the case of the above examples, the long-necked lute), and like sound patterns, are learnt and become part of the knowledge of the musician over many years of playing, and may be used generatively in performance.
Motivic patterns learnt from the radif or the performance tradition can be re-applied at different pitch levels in performance, and a number of such patterns were identified in the analyses of this chapter. Thus, for example, motifs (a) and (b) were heard at different pitch levels: essentially the same physical movement, but at a different position on the instrument (see Section 6.3). Similarly, the following motif was heard at different pitch levels in two different performances by Malek (see examples [118] and [119]):

At the most fundamental level, the cumulative effect of playing this music over many years lends musicians certain habitual types of movement on the instrument. It would seem that once learnt, the physical movement of a particular phrase or motif becomes part of the motor memory of the musician and can be re-applied in different contexts and at different pitch levels in subsequent performances. In the case of the generative phrase structures discussed in Section 6.3 and the phrases discussed in Section 6.4, it is likely that the physical movement involved in playing these phrases is an important dimension of musicians' knowledge of them, and thus important in the process of their re-creation.

6.8.3 Further Reflections on Extended Repetition

Whilst it has not been possible to discuss in detail the specific roles played by individual procedures and their use by musicians in particular contexts, the case of extended repetition will be briefly considered in this section. In the course of identifying a large number of examples of extended repetition, both in radifs and performances (and both within Segâh and Mâhur), a growing interest developed in the role of this procedure in the music. Extended repetition seems to provide a means by which tension is built up and released: in effect, the first section of the phrase establishes the basic musical material, the second serves to build up tension through repetition, and this tension is released in the extension and
climax of the third section of the phrase and the eventual descent to pause. Thus, extended repetition embodies within its structure the most basic types of development in this music: repetition, variation, and extension. These techniques are central to the improvised performance of Persian classical music, and represent points along a continuum (moving away from the original) of possible ways of developing a phrase. It may be these two features - the building of tension on the one hand and the incorporation of fundamental compositional techniques on the other - that make extended repetition such a prominent developmental procedure in this music.

Furthermore, extended repetition is also of interest when one considers the significance of the number three in Persian culture, where it is thought to be particularly complete. Events, both good and bad, are said to happen in "threes", and this is reflected in the frequently heard expression "tā seh nasheh, bāzi nasheh", which literally translates as "until three happens, there is no play", and the closest parallel to which in English is "third time lucky". Could extended repetition be the musical counterpart to "tā seh nasheh, bāzi nasheh", the first two sections of the phrase creating a feeling of anticipation which is resolved by the releasing movement of the final extended section? In addition, as mentioned in Section 6.2.2, the structure of extended repetition, with its building, sustaining, and subsequent resolution of tension brings to mind certain types of heightened speech, particularly as found in the form of oratorical discourse known as rajazkhāni.

Of course, this raises questions regarding the relationship between musical and non-musical structures, whether the former can be shaped by a musician's knowledge and experience of the latter, or whether apparent correlations point to deeper aspects of culture. Whilst limits of space preclude detailed exploration of such questions, these ideas have been put forward in order to suggest potentially interesting areas of investigation.
In seeking to understand the processes of creativity in any music, one of the most fundamental questions, and one that lies at the heart of this study, is: what do musicians need to know in order to be able to create music which is both unique and yet still part of the ongoing tradition? The general consensus among musicians and scholars is that the radif underlies all creativity in Persian classical music. Moreover, since it is through the radif that musicians learn all that they need to know in order to be able to improvise, it has been suggested that there is, in effect, little necessity for the teacher to discuss details of improvisation with pupils. But how does the radif teach improvisation? The preceding analyses have shown that whilst radif and performance versions of individual gushehs within Segāh do share important features, in terms of specific musical material, the relationship between radif and performance is far from straightforward, particularly in the case of more prominent gushehs. Whilst similar musical material and compositional techniques were found in both, these were often in different contexts: the same musical material attached to different compositional techniques and vice versa. On the basis of this, it was suggested that whilst musicians learn melodic material and developmental procedures as a "unit" in the radif, these become abstracted in the mind of the musician in the course of time, forming the store of ideas upon which musicians are able to draw during improvisation (see the ends of Sections 6.2 and 6.3). The fact that it was possible to isolate certain compositional techniques which seemed to exist independently of specific melodic material certainly strengthens such ideas. In addition, following on from the discussion in Chapter Five, the analyses also point to important differences in the creative processes involved in the performance of the central gushehs and gushehs such as maqlub, in which material and procedures from the radif are maintained as a unit in performance as part of the underlying structure of the gusheh.

In terms of the central gushehs, then, there would appear to be possible parallels between the processes of musical creativity as described above and those of spoken language (as discussed in Chapter One). Thus, just as linguists have sought to explain the generative nature of language in terms of underlying rules
which are used to generate unique "surface structure" sentences, so the analyses of this chapter have suggested that musical statements which are both unique and yet part of the tradition are generated through underlying principles of musical construction. Whilst the analogy between music and language is clearly complicated by the lack of an obvious semantic component in the former, the crucial point is that like language, music is inherently generative. Moreover, just as (native) language speakers abstract grammatical rules through hearing and using existing sentences of their mother tongue, so musicians come to understand the underlying principles (both aural and motor) through experiencing existing musical structures. Thus, both musical and linguistic creation depend upon the learning of existing structures, their abstraction and analysis, and the subsequent generation of new statements. This suggests that, albeit at a very general level, some of the underlying creative processes in music and language may be similar, possibly rooted in the "genetic software" of the human mind (see Footnote 144, Chapter Five). Indeed, without venturing into the thorny area of musical universals, it might tentatively be suggested that music may be based on the same:

... deep and restrictive principles that determine the nature of human language and [which] are rooted in the specific character of the human mind. (Chomsky 1972, quoted in Aitchison 1989:91)

Despite the difficulty of defining the nature of, and isolating, a formal musical "grammar", such a grammar (or set of rules) is clearly at work, allowing certain musical statements and disallowing others. If this were not the case, how would musicians be able to continually generate phrases never heard before, knowing that they are "grammatically" correct and within the boundaries of the tradition? The rules and limits of variation in the music, regularly invoked in the course of this analysis, clearly form an important part of such a grammar.

One of the conclusions to be drawn from the analyses of this chapter, therefore, is that improvised performance in Persian classical music (and with implications for other musical traditions) transcends the simple memorisation of alternative

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173 Although whether, as generative linguists would argue for language, this takes place on the basis of some kind of innate universal musical "blueprint" in the human mind, is beyond the scope of this study.
versions of phrases and their subsequent selection and re-arrangement in performance (in a similar way to behavioral explanations of language), but the active analysis and re-creation of the music through the abstraction of compositional rules and their creative re-application in different contexts and with different musical material. Moreover, the system has its own evolving dynamic, and procedures and material can take on a perpetually generative character. As seen in Section 6.6, procedures may be creatively combined to generate new procedures which when applied to musical material, produce new ideas which themselves become the basis for further development. In this way, the performance tradition comprises an ever changing kaleidoscope of patterns, in which no two musical expressions are the same.

Furthermore, in music, as in language, it appears that such creative processes take place at a level below that of awareness. This is clearly a complex subject, and has already been discussed in Chapter Three, and more briefly in the course of other chapters. What is apparent is that musicians build up a "... large and well-organized body of knowledge." (Sloboda 1982:484, quoted in Chapter One) which forms the basis for improvised performance. In the case of the Persian classical musician, this includes information on the overall structuring of the dastgāh; the limits and rules of variation for each gusheh, including the core elements of each gusheh; particular developmental procedures and melodic material; and generative phrase structures and motivic patterns (the latter perhaps within the motor memory). As discussed in Chapter Three (Section 3.1.5), some aspects of the music - for example, the ordering of gushehs, the hierarchy of pitches within gushehs, and specific melodies - have available terminology and are thus readily discussed by musicians. In addition, there does appear to be some awareness on the part of musicians of some of the compositional techniques analysed in this chapter, but these are not generally discussed within the tradition (perhaps because, at present, there is no terminology with which to do so). Pāyvar's response to a question concerning the use of compositional techniques was quoted earlier:

This is really something intuitive. The musician has experienced/felt [hess] it and it comes naturally ... it is not worked out [consciously] [hesāb nemikoneh] ... It is intuitive, but based on what a musician has already heard. He doesn't think about it -
"now I'll go up one pitch, now I'll come down again" [in the case of sequence] - it just happens like that. (Interview 8.11.90)

Thus, compositional procedures, like other underlying aspects of the music, such as particular patterns and movements which shape music-making, seem to be used intuitively as a result of many years of playing, listening, and "... prolonged immersion in the idiom ... to the point where it is part of his [the musician's] very nature." (Small 1984:4, quoted in Chapter One).

This chapter has identified a number of compositional procedures within Segāh, and in particular has explored the use of various types of extension in improvised performance, as well as considering what these procedures reveal of the underlying creative processes. As the preceding examples have shown, the same kinds of procedures are found both within the tradition of the radif and the performance tradition, and indeed musicians draw on both in improvised performance. This reinforces the idea put forward in Chapters Two and Three (in the context of discussion of the radif and learning processes) that Persian classical music embodies the rules for its own renewal: in the words of Nattiez "... music generates music" (1983:472, quoted in Section 2.2.1). Indeed, it may be that the persistence of any musical tradition depends upon the existence of an underlying set of rules which are embodied within the music and which are learnt consciously or subconsciously by individuals through contact with the music, either as listeners or as performers, and which define both the limits of creativity and how to create within the tradition. The result is a basic unity in the creative procedures heard within any musical tradition.