

Performance Reflection Assignment

The primary purpose of this exercise is to apply critical analysis to a musical performance (or other type of performance with prominent acoustical content and/or effects) using the knowledge that you have gained so far in the course. A secondary purpose is to motivate you to explore musical styles and performance opportunities that you might not have considered in the past. The world of sound and music is rich and varied. There are surprises to be discovered in some of the most unexpected places. As you complete this assignment, your goal should be to demonstrate that you have engaged in the course material and gained enough proficiency with it to intelligently discuss aspects of musical performances that most people rarely notice and that you probably have never noticed before either.

Assignment:

1. Select a musical performance to attend that meets the criteria listed below, and notify me of your choice before the event. Approved upcoming shows will be listed at the course web site, but you do not have to select a performance on the list. The list will be updated as necessary, and suggested additions are welcome. I strongly encourage you to contact me (e-mail is fine) before attending a performance that is not on the list to confirm that it will satisfy the criteria. Retroactive approvals submitted after the performance will not be granted.
 - Most (or at least half) of the instruments must generate sound acoustically; that is, most of the sound should not be electronically generated or highly processed. Of course, electronic amplification of acoustic instruments is okay if necessary for everyone to hear. Exceptions will be made for unusual cases, for example, if one or more instruments is a Theremin or other uncommon electronic instrument.
 - Generally, popular music with typical instrumentation (electric guitar, bass, synthesizers, and drums) will not be approved because most students are already highly familiar with that type of soundscape and because the theory underlying electronically generated sounds is largely inaccessible to non-engineers.
 - The music must be performed by competent musicians. Professionals or semi-professionals are preferred, but highly trained amateur musicians are also acceptable.
 - The performance must be at least an hour long, and you must attend all of it.
 - The performance does not have to be in the Central Pennsylvania region, but detailed information about it must be available online.
2. Read the "Performance Etiquette" section below, and follow it during the performance.

3. Provide me with a printed program or a link to detailed online information about the performance. If neither is available, obtain the name and contact information (e-mail address preferred) of the organizer or one of the performers.
4. By 11:59 pm on the third day after the performance, submit a written reflection about it that meets the following guidelines:
 - Apply critical analysis to the musical performance using the knowledge that you have gained so far in the course, and demonstrate that you have engaged in the course material and have gained enough proficiency with it to intelligently discuss the scientific and/or engineering aspects of musical performances. See the “Suggestions for Content” section below.
 - Cite all references and other forms of intellectual property that belong to others.
 - The length should be 400–800 words, although very well written reflections that are shorter than 400 words and that satisfy the other criteria can earn the maximum score.
 - Convert the reflection to PDF format and submit it via the course Moodle site. Follow the relevant guidelines that apply to homework submissions.
5. If you are not satisfied with the score on your first performance reflection, you may submit a second one. The higher of the two scores will be recorded.

Suggestions for Content: [This is not an exhaustive list.]

- Describe specific details about the room acoustics with plausible explanations.
- Describe in detail the sounds produced by one or more instruments in the ensemble and relate them to the course material. Comment on specific aspects of the timbre, frequency (pitch) range, how the sound changes with loudness, how the artist changes the timbre, etc. Add plausible explanations for the details that you hear.
- Describe unusual effects that emerge from the way that sounds are combined or the way that the instruments are played. Comment on whether you detect beat notes, amplitude modulation, difference tones, etc. and what could have caused them. Does the music evolve from consonance to dissonance and back again, and what features of the music create that perception?
- Consider addressing more than one of the items listed above and/or add others.

Scoring Criteria:

This assignment will account for 10% of your overall course grade. The overall score will be the sum of the scores achieved in the categories listed below, quantized at the indicated point levels (100 points maximum).

0, 45, 65, 75 pts	Proficiency of analysis and engagement in the course material
0, 10, 15, 20 pts	Quality of writing (organization, grammar, word choice, style)
0, 5 pts	Superior exposition and/or writing

Scores for late reflections will be reduced 10 points per day late, not including weekends.

Performance Etiquette:

Please observe the following guidelines during the performance. They are meant to help you and the people around you maximize your enjoyment of the show. You should follow them at any concert that you attend.

1. Put away all electronic devices. Musicians can see the glow, and they consider it to be very rude.
2. Silence all electronic devices.
3. Do not leave before the performance ends and especially not during a piece. If you absolutely must leave, try to wait until a time between pieces. Also wait until a time between pieces to return to your seat. Use the restroom beforehand.
4. Do not talk to anyone during a piece, except possibly for very brief and infrequent whispered comments.
5. If a lengthy classical piece is being performed, do not applaud between movements or during any section of the piece. A movement is a major section of a symphony, concerto, sonata, or other large-scale composition. For example, the movements in the *Concierto de Aranjuez* by Rodrigo are: 1. Allegro con spirito, 2. Adagio, and 3. Allegro gentile. Applaud only after the entire work has been performed.
6. Reading the provided program during a performance is generally acceptable, but all other reading material should be put away.
7. Do not work on homework or other assignments. Pay attention to what the artists are doing.
8. Do not consume any food or beverages during the performance unless the venue permits it and it appears to be (or is announced to be) acceptable.
9. Sometimes you might find yourself bored or turned off because the performance was not what you expected. It happens, but it is still not an excuse for rudeness. Continue to follow the guidelines above. If there is an intermission or other extended break, you can leave then. But consider staying and trying to understand what message or emotion the composer was trying to convey or why the performance was scheduled by the sponsoring organization. Give the artists a chance!