

MUSC 3351: Jazz Improv II

Course Registration Number: 4141

Spring Semester 2023

Mondays and Wednesdays; 4:10–05:30PM; [DGH 190](#)

Instructors: Dr. Josiah Boornazian

Email: josiah.boornazian@utah.edu

Phone Number: 801-581-7366

Office Hours: Wednesdays 5:30–6:30PM or by appointment

Office Location: [DGH 262](#)

Zoom/IM/Canvas Conference Office Hours: by appointment

Email is the best way to contact Dr. Boornazian to communicate regarding classes/ensembles.

Required Materials

For each meeting, students will need to bring their instruments and all necessary gear for participating, including reeds, mutes, doubles, amplifier cables, etc.—however, amplifiers, chairs, music stands, pianos, and drum kits will be provided for all on campus rehearsals and performances.

There is no required textbook for this course. Required readings will consist of excerpts from the instructor’s method book as well as additional supplemental reading materials, such as articles written by the instructor for various academic journals and/or LearnJazzStandards.com. The instructor will make all required course readings available directly to students online at no cost. Although no textbooks are officially required, below is a list of recommended texts which will be helpful for mastering the material covered in this course and for the pursuit of lifelong learning and excellence in jazz improvisation:

- *Creative Improvisation: A Concise Method*, by Dr. Josiah Boornazian (Self-Published, 2016: available for purchase online at www.josiahboornazian.com/shop)
- *The Jazz Chord/Scale Handbook* by Gary Keller (Advance Music)
- *Training the Ear* (Volumes 1 and 2) by Armen Donelian (Advance Music, 1992)
- *Patterns for Improvisation* and *Patterns for Saxophone* by Oliver Nelson (Jamey Aebersold, 2010)
- *Inside Improvisation* (series) by Jerry Bergonzi (Advance Music)
- *Patterns for Jazz* by Jerry Coker et al. (Alfred Music, 1982)
- *Repository of Scales and Melodic Patterns* by Yusef Lateef (Fana Music, 2008)
- *The Thesaurus of Scales and Melodic Patterns* by Nicolas Slonimski (Schirmer Trade Books, 1975)
- *The Intervallistic Concept* by Eddie Harris (Seventh House Ltd., 2006)

Course Description

Jazz Improvisation I covers fundamental elements of jazz improvisation. The focus of this class will be learning improvisation through playing an instrument and analyzing/transcribing jazz solos. Progressive playing exercises will be used to help students internalize each concept. This includes harmony, modality, and chord/scale relationships. Another way to think about this course is as “practice techniques for jazz musicians.” This course introduces students to the foundational vocabulary, concepts, and analytical techniques of jazz improvisation. Students will learn the fundamental skills necessary to improvise fluently and creatively within traditional jazz styles, including swing, bebop, modal, and post-bop/hard bop. Class meetings will incorporate lectures, demonstrations, discussions, assessments, and in-class music listening. This course combines written theory, outside reading/practicing, ear training, transcription, analysis, and basic keyboard (piano) skills. The prerequisites for this course include a passion for jazz and learning, a strong work ethic, and an open mind.

Course Rationale

Ear training, musical theory, and musical analysis are vital aspects of a well-rounded jazz education. Understanding jazz theory and analysis enables musicians to more effectively and fluently improvise. The ability to confidently improvise using the standard vocabulary of historical mainstream jazz styles and the capacity to intellectually recognize, understand, and explain the conventions of jazz improvisation are essential skills for every jazz musician. Even if students are already talented improvisers, it is important that they also possess theoretical justifications to explain the decisions they make while improvising. This is especially true nowadays, since most performers end up teaching music in one capacity or another at various times over the course of their careers. For musicians to effectively teach basic jazz skills, they need to master the theoretical framework which justifies, contextualizes, and explains the conventions of jazz improvisation.

Course Outcomes

Upon successful completion of this course, students should be able to:

1. Demonstrate a better understanding of the theory of musical intervals, scales, and chords (including standard chord nomenclature such as slash chords)
2. Display a command of the verbal vocabulary of jazz theory
3. Describe/explain blues, rhythm changes, and other standard jazz song forms and chord progressions
4. Understand how and why one would musically transcribe and analyze solos by important jazz artists and offer logical theoretical justifications that explain what the performer was likely thinking about while improvising
5. Locate and play basic modes, scales, chords, chord/scale patterns, and chord progressions on their instrument(s) of choice and on piano
6. Identify basic intervals, chord/scale qualities, chord progressions, and standard song forms by ear and by name, and play them on their instrument(s) of choice and on piano
7. Learn songs from the body of standard jazz repertoire in an efficient and comprehensive manner

8. Feel inspired, motivated, and encouraged to continue to improvise and develop their creative and spontaneous music-making skills for the duration of their lives

Teaching and Learning Methods

This course will consist of practical activities that will help students learning the basics of how to practice jazz skills, including group and individualized instruction and guidance regarding jazz improvisation and scale-chord theory. This course has limited class time, and therefore there is only a limited amount of time that students have to learn the course materials. This means that students will be always held to the highest possible standards of musicianship. Students will be expected to display the same level of self-discipline and individual and collective responsibility as professional jazz musicians. Individual practice and preparation are essential to success in this course. It is also expected that all students will display the utmost respect for themselves, the music, the university, their peers, the instructor, and any guest artists at all times. Therefore, all students will be expected to show up to all meetings on time, with all previously assigned materials completely learned for each meeting so that class time will be maximally efficient and productive.

General University Policies

1. ***The Americans with Disabilities Act.*** The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.
 - *Given the nature of this course, attendance is required, and adjustments cannot be granted to allow non-attendance. However, if you need to seek an ADA accommodation to request an exception to this attendance policy due to a disability, please contact the Center for Disability and Access (CDA). CDA will work with us to determine what, if any, ADA accommodations are reasonable and appropriate.*
2. ***University Safety Statement.*** The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.
3. ***Addressing Sexual Misconduct.*** Title IX makes it clear that violence and harassment based on sex and gender (which Includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other

protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

4. COVID-19 Resources.

The University of Utah has implemented reasonable health and safety protocols, taking into account recommendations by local, state and national public health authorities, in response to the COVID-19 pandemic.

For the most up-to-date information on COVID-19 protocol, please refer to <https://coronavirus.utah.edu/>.

Other resources are

1. [Student Guidance: What Steps to Take for a Possible or Confirmed COVID-19 Exposure](#)
2. [Registrar's Office COVID-19 Information and FAQ's](#)
3. [Housing & Residential Education](#)

5. **Drop/Withdrawal Policies.** Students may drop a course within the first two weeks of a given semester without any penalties. Students may officially withdraw (W) from a class or all classes after the drop deadline through the midpoint of a course. A "W" grade is recorded on the transcript and appropriate tuition/fees are assessed. The grade "W" is not used in calculating the student's GPA. For deadlines to withdraw from full-term, first, and second session classes, see the U's Academic Calendar.

6. Other important information to consider including:

- a. Student Code: <http://regulations.utah.edu/academics/6-400.php>
- b. Accommodation Policy (see Section Q): <http://regulations.utah.edu/academics/6-100.php>

7. Student Mental Health Resources

- *Rates of burnout, anxiety, depression, isolation, and loneliness have noticeably increased during the pandemic. If you need help, reach out for [campus mental health resources](#), including free counseling, trainings and other support.*
- *Consider participating in a [Mental Health First Aid](#) or other [wellness-themed](#) training provided by our Center for Student Wellness and sharing these opportunities with your peers, teaching assistants and department colleagues*

- 8. Diverse Supports for Students.** Your success at the University of Utah is important to all of us here! If you feel like you need extra support in academics, overcoming personal difficulties, or finding community, the U is here for you.

Student Support Services (TRIO)

TRIO federal programs are targeted to serve and assist low-income individuals, first-generation college students, and individuals with disabilities.

Student Support Services (SSS) is a TRIO program for current or incoming undergraduate university students who are seeking their first bachelor's degree and need academic assistance and other services to be successful at the University of Utah.

For more information about what support they provide, a list of ongoing events, and links to other resources, view their website or contact:

Student Support Services (TRIO)

801-581-7188

trio.utah.edu

Room 2075

1901 E. S. Campus Dr.

Salt Lake City, UT 84112

American Indian Students

The AIRC works to increase American Indian student visibility and success on campus by advocating for and providing student centered programs and tools to enhance academic success, cultural events to promote personal well-being, and a supportive “home-away-from-home” space for students to grow and develop leadership skills.

For more information about what support they provide, a list of ongoing events, and links to other resources, view their website or contact:

American Indian Resource Center

801-581-7019

diversity.utah.edu/centers/airc

Fort Douglas Building 622

1925 De Trobriand St.

Salt Lake City, UT 84113

Black Students

Using a pan-African lens, the Black Cultural Center seeks to counteract persistent campus-wide and global anti-blackness. The Black Cultural Center works to

holistically enrich, educate, and advocate for students, faculty, and staff through Black centered programming, culturally affirming educational initiatives, and retention strategies.

For more information about what support they provide, a list of ongoing events, and links to other resources, view their website or contact:

Black Cultural Center

801-213-1441

diversity.utah.edu/centers/bcc

Fort Douglas Building 603

95 Fort Douglas Blvd.

Salt Lake City, UT 84113

Students with Children

Our mission is to support and coordinate information, program development and services that enhance family resources as well as the availability, affordability and quality of child care for University students, faculty and staff.

For more information about what support they provide, a list of ongoing events, and links to other resources, view their website or contact:

Center for Childcare & Family Resources

801-585-5897

childcare.utah.edu

408 Union Building

200 S. Central Campus Dr.

Salt Lake City, UT 84112

Students with Disabilities

The Center for Disability Services is dedicated to serving students with disabilities by providing the opportunity for success and equal access at the University of Utah. They also strive to create an inclusive, safe, and respectful environment.

For more information about what support they provide and links to other resources, view their website or contact:

Center for Disability Services

801-581-5020

disability.utah.edu

162 Union Building

200 S. Central Campus Dr.

Salt Lake City, UT 84112

Students across Intersectional Identities and Experiences

The Center for Equity and Student Belonging (CESB) creates community and advocates for academic success and belonging for students across inter-sectional identities and experiences among our African, African American, Black, Native, Indigenous, American Indian, Asian, Asian American, Latinx, Chicax, Pacific Islander, Multiracial, LGBTQ+, Neurodiverse and Disabled students of color.

For more information about what support they provide, a list of ongoing events, and links to other resources, view their website or contact:

Center for Equity and Student Belonging (CESB)

801-581-8151

diversity.utah.edu/centers/CESB/

235 Union Building
200 S. Central Campus Dr.
Salt Lake City, UT 84112

English as a Second/Additional Language (ESL) Students

If you are an English language learner, there are several resources on campus available to help you develop your English writing and language skills. Feel free to contact:

Writing Center

801-587-9122

writingcenter.utah.edu

2701 Marriott Library
295 S 1500 E
Salt Lake City, UT 84112

English Language Institute

801-581-4600

continue.utah.edu/eli

540 Arapeen Dr.
Salt Lake City, UT 84108

Undocumented Students

Immigration is a complex phenomenon with broad impact—those who are directly affected by it, as well as those who are indirectly affected by their relationships with family members, friends, and loved ones. If your immigration status presents obstacles that prevent you from engaging in specific activities or fulfilling specific course criteria, confidential arrangements may be requested from the Dream Center.

Arrangements with the Dream Center will not jeopardize your student status, your financial aid, or any other part of your residence. The Dream Center offers a wide range of resources to support undocumented students (with and without DACA) as well as students from mixed-status families.

For more information about what support they provide and links to other resources, view their website or contact:

Dream Center

801-213-3697

dream.utah.edu

1120 Annex (Wing B)
1901 E. S. Campus Dr.
Salt Lake City, UT 84112

LGBTQ+ Students

The LGBTQ+ Resource Center acts in accountability with the campus community by identifying the needs of people with a queer range of [a]gender and [a]sexual experiences and responding with university-wide services.

For more information about what support they provide, a list of ongoing events, and links to other resources, view their website or contact:

LGBTQ+ Resource Center

801-587-7973

lgbt.utah.edu (Links to an external site.)

409 Union Building
200 S. Central Campus Dr.
Salt Lake City, UT 84112

Veterans & Military Students

The mission of the Veterans Support Center is to improve and enhance the individual and academic success of veterans, service members, and their family members who attend the university; to help them receive the benefits they earned; and to serve as a liaison between the student veteran community and the university.

For more information about what support they provide, a list of ongoing events, and links to other resources, view their website or contact:

Veterans Support Center

801-587-7722

veteranscenter.utah.edu (Links to an external site.)

418 Union Building

200 S. Central Campus Dr.
Salt Lake City, UT 84112

Women

The Women's Resource Center (WRC) at the University of Utah serves as the central resource for educational and support services for women. Honoring the complexities of women's identities, the WRC facilitates choices and changes through programs, counseling, and training grounded in a commitment to advance social justice and equality.

For more information about what support they provide, a list of ongoing events, and links to other resources, view their website or contact:

Women's Resource Center

801-581-8030

womenscenter.utah.edu

411 Union Building
200 S. Central Campus Dr.
Salt Lake City, UT 84112

Inclusivity at the U

The Office for Inclusive Excellence is here to engage, support, and advance an environment fostering the values of respect, diversity, equity, inclusivity, and academic excellence for students in our increasingly global campus community. They also handle reports of bias in the classroom as outlined below:

Bias or hate incidents consist of speech, conduct, or some other form of expression or action that is motivated wholly or in part by prejudice or bias whose impact discriminates, demeans, embarrasses, assigns stereotypes, harasses, or excludes individuals because of their race, color, ethnicity, national origin, language, sex, size, gender identity or expression, sexual orientation, disability, age, or religion.

For more information about what support they provide and links to other resources, or to report a bias incident, view their website or contact:

Office for Inclusive Excellence

801-581-4600

inclusive-excellence.utah.edu (Links to an external site.)

170 Annex (Wing D)
1901 E. S. Campus Dr.
Salt Lake City, UT 84112

Other Student Groups at the U

To learn more about some of the other resource groups available at the U, check out: [getinvolved.utah.edu/
studentsuccess.utah.edu/resources/student-support](http://getinvolved.utah.edu/student-success.utah.edu/resources/student-support)

Additional Course Policies and Policy Details

Attendance

Students are expected to attend all scheduled classes, lessons, rehearsals, and required performances and may be dropped from the course for excessive absences. Students should contact the instructor in advance of an excused absence to receive written permission and to arrange to make up missed work or examinations. In order to truly learn, earn a good grade, and benefit from this course, regular, punctual attendance is absolutely essential and mandatory. Discussing and playing music are the key activities and focal points of this course. Students simply cannot effectively listen, play, and learn if they do not attend class regularly and punctually. Students are responsible for all course materials/practicing assignments missed due to absence or tardiness. Attendance will be taken at the beginning of each class period. If a student arrives late, the student is responsible for letting the instructor know after class has ended; otherwise, the student will be marked absent.

In a case where a student cannot attend a class meeting due to a bona fide emergency such as a medical issue, the affected student will be responsible for contacting the instructor and/or fellow students to find out what the student missed.

Tardiness

Musicians should be in their seats with their assignments learned and ready to play at least five minutes prior to class. Three unexcused late arrivals (in excess of 15 minutes after the scheduled class start time) will be treated as equivalent to one unexcused absence for the purposes of calculating final semester grades.

Absence/Sick Policy

Alternate assignments will be provided if a student cannot attend class at the scheduled time of a face-to-face, hybrid, or synchronous course because they do not pass COVID screening protocols, they need to self-isolate because of exposure, or they become sick with COVID and are unable to complete assignments or exams by the original due date. Please note that in such cases, students must provide instructors with documentation, such as positive COVID test or note from a qualified medical professional. If a student misses an online synchronous or in-person class meeting, either the instructor will provide the student with access to a recording of the lecture/demonstration materials missed and/or an alternative assignment will be given to the student via email. Students must make every effort possible to communicate with the instructor to facilitate finding solutions for absences due to illness.

The following guidelines apply to recordings of course lectures and materials:

*The use of recordings will enable you to have access to class lectures, group discussions, etc. in the event you have to miss a synchronous or face to face class meeting due to illness or other extenuating circumstance. Our use of such technology is governed by the Federal Educational Rights and Privacy Act (FERPA) and the University of Utah's intellectual property policies. A recording of class sessions will be kept and stored by the university, in accordance with FERPA and University of Utah policies. Your instructor will not share the recordings of your class activities outside of course participants, which include your fellow students, teaching assistants, or graduate assistants, and any guest faculty or community-based learning partners with whom we may engage during a class session. **You may not share recordings outside of this course.***

Academic Integrity

Members of the university community must uphold the [University of Utah Student Code](#)'s shared values of honesty, integrity, and mutual respect in our interactions and relationships. In this regard, academic integrity is fundamental in our actions, as any act of dishonesty conflicts as much with academic achievement as with the values of honesty and integrity. Violations of academic integrity include, but are not limited to: cheating, plagiarism (including self-plagiarism), and collusion; submission for credit of any work or materials that are attributable in whole or in part to another person; taking an examination for another person; any act designed to give unfair advantage to a student; or the attempt to commit such acts. **All violations of Academic Integrity will be reported to the appropriate person within the university administration.**

Classroom Decorum

It is important to maintain respect for the subject material, the academic process, the instructor, the university, and all fellow students at all times. Students are expected to conduct themselves in a mature manner in accordance with the [University of Utah School of Music Student Handbook](#). Disrespectful or inappropriately argumentative behavior directed toward the instructor, university guests, and/or other students is not acceptable and will not be tolerated.

Links to information for music students, including the School of Music Student handbooks for undergraduate and graduate students may be found on this webpage:

<https://music.utah.edu/students/music-majors.php>

Electronic Devices Policy

With the exception of the technology needed to access course materials, all electronic devices are to be turned completely off for the duration of each class/lesson/rehearsal, unless they are being used directly for a task assigned by the instructor (e.g., a metronome, tuner, or lead sheet viewed on a phone). This includes all cell phones, smart phones, tablets, laptop computers, gaming devices, and all other handheld personal electronic devices. Though sometimes useful, these items are incredibly distracting in the educational environment and they are inappropriate for the private lesson setting. Also, recent

research suggests that students retain information better when they hand-write notes as opposed to typing them.

Email Communication Policy

Please be mindful of proper email etiquette when writing to me. Although my email policies are strict and may seem capricious, they are not without good reason. Developing and maintaining professional email etiquette is very important. It will help you greatly with your academic and professional careers. Here are some basic guidelines to help you:

- Check the syllabus and the University of Utah website thoroughly for the answer to your question(s) before writing to me. The answers to most questions students ask me via email are available on the course syllabus or online.
 - Some links to student resources:
 - School of Music website: <https://music.utah.edu/>
 - College of Fine Arts website: <https://www.finearts.utah.edu/>
 - School of Music Student Handbook: <https://music.utah.edu/students/music-majors.php#currentstudents>
 - College of Fine Arts Advising link: <https://www.finearts.utah.edu/students/current-undergraduates/academic-advising>
 - School of Music audition information: <https://music.utah.edu/ensembles/index.php#jazz>
- Include a relevant email subject in all emails to me.
- Always address instructors/professors as “Dr.” or “Professor” followed by their last name, unless they’ve given you permission to address them by their first name only.
- Identify yourself and identify who you are writing to by name in every email. Begin your email with “Dear...,” or “Hello...,” followed by the name of the person you are addressing. Be sure to sign your email with your name. **Please Note: I will not answer emails if they do not contain a subject, are not addressed to me, and/or do not contain a student’s name.** Again, this may sound like I am being exceptionally picky, but these stipulations are not without good reason. As mentioned above, I want you to learn and practice good email etiquette. Secondly, I have wasted a lot of my time sorting through emails from unidentified students, or that were sent without a subject and/or to the wrong instructor.
- If emailing regarding auditions, always include your full name, your major/minor, and your lessons status.
- Be polite, concise, and clear about what you are asking. Being rude never helps! Plus, you never know what kind of day someone is having. The person you are writing to may have just suffered an injury, illness, loss in the family, etc. so politeness is extremely important when dealing with email communications.
- Use proper grammar, punctuation, usage, and do not use slang. Always put your best foot forward when communicating with people in academic and professional environments. Few things lower a teacher’s (or a potential employer’s) view of you more quickly than reading and email from you that is full of slang and grammatical errors.

- Try to update your email account so your name appears on your “alias” instead of your university ID number. Look for the “settings” icon in your email client to update your profile to solve this issue.

Assignments

The primary daily/weekly assignment for this course is for students to *practice their instruments, memorize the assigned jazz licks/tunes/exercises, and prepare the required music for each class meeting.*

Other assignments will consist of:

1. Weekly reading assignments (to be completed outside class)
2. Quizzes
3. In-class and/or audiovisual (outside class) verbal and/or playing tests to demonstrate proficiency with scales, modes, chords, and songs
4. A written final theory and live or prerecorded performance test
5. A final transcription project

Transcriptions:

One of the best ways to learn and absorb new vocabulary is to transcribe improvised solos performed by jazz masters. Over the course of the semester, students will transcribe one solo. Solos for transcription should be selected from recordings of major jazz artists active during the time period of the 1930s–1960s. Please seek the instructor’s approval (via email) of your artist and recording selection for your transcriptions before beginning the assignments.

For transcriptions:

1. Select a solo and get written approval (via email) from the instructor
2. Solos should be between 24-36 measures in length (this means you should transcribe 1 chorus of a 32-bar jazz standard or 2–3 choruses of a 12-bar blues)
3. Write down the transcription by hand or by using music notation software; also include graphical analysis on the musical score
4. Write a one-page minimum (double spaced) analysis in which you explain what you think the soloist is thinking about, and why (be sure to refer to specific measures by number as evidence for your claims in the analysis)
5. Submit your written analyzed transcription and written prose analysis on the day the transcription is due
6. **A sample transcription with written prose analysis will be provided by the instructor**

Grading Policies

Rubric: For all jazz ensembles, lessons, theory classes, improvisation classes, and other performance-based courses the grading rubric for assignments and performance activities will be based on the following chart (decimals may be used):

Category	4 (“A”) Excellent	3 (“B”) Good or Acceptable	2 (“C”) Barely or Somewhat Acceptable	1 (“D” or “F”) Unacceptable
1. Tone Quality	Tone is consistently focused, clear, and centered throughout the range of the instrument. Tone has professional quality.	Tone is focused, clear, and centered through the normal playing range of the instrument. Extremes in range sometimes cause tone to be less controlled.	Tone is often focused, clear, and centered, but sometimes the tone is uncontrolled in the normal playing range. Extremes in range are usually uncontrolled.	The tone is often not focused, clear, or centered regardless of the range being played, significantly detracting from the overall performance.
2. Rhythm	The beat is secure and the rhythms are accurate for the style of music being played.	The beat is secure and the rhythms are mostly accurate. There are a few duration errors, but these do not detract from the overall performance.	The beat is somewhat erratic. Some rhythms are accurate. Frequent or repeated duration errors. Rhythm problems occasionally detract from the overall performance.	The beat is usually erratic and rhythms are seldom accurate, detracting significantly from the overall performance.
3. Pitch	Virtually no errors. Pitch is very accurate.	An occasional isolated error, but most of the time pitch is accurate and secure.	Some accurate pitches, but there are frequent and/or repeated errors.	Very few accurate or secure pitches.
4. Dynamics	Dynamic levels are obvious, consistent, and an appropriate interpretation of the style of music being played.	Dynamic levels are typically appropriate and consistent.	Dynamic levels fluctuate but can be discerned.	Attention to dynamic levels is not obvious.
5. Phrasing	Phrasing is always consistent and sensitive to the style of music being played.	Phrasing is usually consistent and sensitive to the style of music being played.	Phrasing is usually consistent and occasionally sensitive to the style of music being played.	Phrasing is rarely consistent and/or rarely sensitive to musical style.
6. Expression and Style	Performs with a creative nuance and style in response to the music with little coaching.	Shows some style and with nuance and style that is appropriate for the piece.	Only occasional display of nuance and style that is appropriate for the piece.	Rarely demonstrates expression and style. Just plays the notes.
7. Note Accuracy	Notes are consistently accurate.	An occasional inaccurate note is	A few inaccurate notes are played,	Wrong notes consistently detract

		played, but does not detract from overall performance.	detracting somewhat from the overall performance.	from the performance.
8. Articulation	Secure attacks. Articulations are always noticeable, clean, controlled, pleasantly varied, and stylistically appropriate.	Attacks are usually secure. Articulations are almost always noticeable, clean, controlled, pleasantly varied, and stylistically appropriate.	Attacks are rarely secure. 30–50% of the time, articulations are noticeable, clean, controlled, pleasantly varied, and stylistically appropriate.	Few secure attacks. Less than 30% of the time, articulations are noticeable, clean, controlled, pleasantly varied, and stylistically appropriate.
9. Style	All style marking were played well and accurately. Made music more than notes and rhythm.	Most style markings were played well and accurately. May have missed one or two, but did not distract from overall style.	Failed to play several style markings accurately. Style of piece was barely recognizable.	Little or no attention was given to style markings. Style of piece was not recognizable.
10. Memorization*	90–100% of the piece or musical exercise or playing assignment was memorized and played accurately. There are no false starts, fumbles, or stumbles while playing the assigned part, song, scale, exercise, etc.	75–89% of the piece or musical exercise or playing assignment was memorized and played accurately. There are only 1–3 false starts, fumbles, or stumbles while playing the assigned part, song, scale, exercise, etc.	50–74% of the piece or musical exercise or playing assignment was memorized and played accurately. There are a more than three false starts, fumbles, or stumbles while playing the assigned part, song, scale, exercise, etc.	Less than 50% of the piece or musical exercise or playing assignment was memorized and played accurately. There are several and/or a distracting number of false starts, fumbles, or stumbles while playing the assigned part, song, scale, exercise, etc.

*Please note the following guidelines and definitions regarding the memorization of jazz performance assignments:

To truly “know” or memorize a jazz tune means:

1. You have *memorized* the melody and can play it *in time* on your instrument (although playing the melody under tempo is acceptable for certain circumstances, especially for bassists playing bebop heads, for example).
2. You have *memorized* the chord changes and can play the chord progression to the song on piano or guitar AND/OR walk bass lines and arpeggiate the chords on your instrument.
3. You can *notate* the song on the spot by writing out the melody and the chord changes as chord symbols in lead sheet format.

4. You can *talk* through the song chord by chord or phrase by phrase in concert pitch, in your instrument's key, and/or using roman numerals.
5. You can transpose the song (play the song in a few other keys) on the spot (at least at a slower tempo, phrase by phrase).

Grading Breakdown:

Relative Weight of Assignments:	Percent of Final Grade:	Points:
Final performance/written exam:	30%	60 pts.
Weekly participation/assignments/tests/quizzes:	40%	80 pts.
Final Transcription Project:	30%	60 pts.
Totals:	100%	200 pts.

Grading Scale for Entering Final Grades:

Total Points	Letter Grade	GPA Value
185-200	A	4.0
180-184	A-	3.7
173-179	B+	3.3
166-172	B	3.0
160-165	B-	2.7
153-159	C+	2.3
146-153	C	2.0
140-145	C-	1.7
133-139	D+	1.3
126-133	D	1.0
120-125	D-	0.7
000-120	F	0.0

Course Schedule

The course will address the following topics in the order listed below. Each topic builds upon the previous topic and students cannot progress through the course if they have not mastered each topic sequentially. Therefore, dates for each topic are TBD, since the course will move at a pace that allows the students to successfully to move from one stage of mastery to the next. Below is a tentative schedule of topics to be covered, and the pacing may change depending on student progress.

Introduction:

- Introductions
- Review course syllabus
- Philosophical issues: what is jazz theory? Can jazz improvisation be taught?

- Review: intervals, enharmonics, triads
- ✓ **Start Reading:** *Creative Improvisation: A Concise Method* Part IV: Melody and Harmony
- ❖ Recommended weekly listening: *Kind of Blue* (Miles Davis); *The Best of the Hot 5 & Hot 7 Recordings* (Louis Armstrong); and *We Get Requests* (Oscar Peterson Trio)

Basic scales, modes, and chords:

- The blues scale
- The major scale and its diatonic triads, seventh chords, and extended chords
- The modes derived from the major scale (“church modes”)
- The “Lydian grip” approach
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-advice/jazz-masters-practice-licks>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/4-ways-make-scales-sound-musical>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/3-dominant-7th-chord-types-all-jazz-musicians-encounter>
- ❖ Recommended weekly listening: *Blue Train* (John Coltrane); *Bitches Brew* (Miles Davis); and *At the Pershing: But Not for Me* (Ahmad Jamal)

Chord Symbols and Voice Leading:

- Jazz nomenclature: Roman numeral analysis: classical vs. jazz
- Voice-leading diatonically; the “right” and “wrong” approaches to teaching diatonic jazz harmony
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/voice-it-right-understanding-jazz-chord-symbols>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/how-to-use-voice-leading-in-your-solos>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/use-guide-tones-navigate-chord-changes>
- ❖ Recommended weekly listening: *At Carnegie Hall* (Thelonious Monk with John Coltrane) and *Mingus Ah Um* (Charles Mingus)

Rhythm:

- The “right” way to teach swing; 4/4 and swing based on 6/8 and 12/8 feel
- Basic polyrhythms: 2-against-3, 3-against-2
- Marching or tapping and playing (tapping on all 4 beats, 1 and 3, 2 and 4, and other beats/other parts of the measure, e.g. the “and” of 2)
- Call-and-response (melody and rhythm) and “one note” solos
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-advice/3-game-changing-rhythmic-secrets-make-solos-swing-harder-ever>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/rhythm/3-polyrhythmic-exercises-every-jazz-musician-master>

- ✓ **Start Reading:** *Creative Improvisation: A Concise Method* Part III: Musical Time and Rhythm

Tune Learning/Transcription:

- Learning melody/chord changes by ear
- “One rhythm” per chorus method
- Basic walking bass line concepts
- Arpeggiating chord changes
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-advice/5-ways-play-outside-blues>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-advice/how-to-practice-walking-bass-lines-for-all-jazz-instrumentalists>
- ❖ Recommended weekly listening: *Moanin'* (Art Blakey & The Jazz Messengers) and *April in Paris* (Count Basie and his Orchestra)

II-V-I's:

- The II-V-I progression and I-VI-II-V-I, basic voicings, and writing/composing/improvising II-V-I lines
- Cycle of 5ths/4ths; basics of the diminished scale/chord
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-advice/3-melodic-secrets-learned-jazz-masters>
- ❖ Recommended weekly listening: *Saxophone Colossus* (Sonny Rollins) and *Art of the Trio, Vol. IV: Back at the Vanguard* (Brad Mehldau Trio)

Melodic Minor:

- Melodic minor scale and its modes
- Dominant 7(#11), altered/super Locrian/diminished whole tone, half-diminished 7th chords, tonic minor applications
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/play-modes-melodic-minor-scale>
- ❖ Recommended weekly listening: *Getz/Gilberto* (Stan Getz/Joao Gilberto) and *Speak No Evil* (Wayne Shorter)

Minor II-Vs:

- Minor II-V-I's and writing/composing/improvising minor II-V-I lines; harmonic minor and major scales
- Minor II-V-I and bebop line [dominant 7(b9)] applications
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/minor-issues-4-strategies-tackling-minor-ii-v>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/secret-scale-unlock-2-5-1-chord-progressions>
- ❖ Recommended weekly listening: *Somethin' Else* (Cannonball Adderley) and *Portrait in Jazz* (Bill Evans)

Harmonic major and harmonic minor scales and modes:

- Uses of harmonic major and harmonic minor scales
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/use-harmonic-minor-scale-minor-2-5-1>
- ❖ Recommended weekly listening: *Birth of the Cool* (Miles Davis) and *Song for My Father* (Horace Silver)

Advanced chord progressions:

- The “bebop” or “Lady Bird” turnaround
- Tritone substitutions
- The “Giant Steps” cycle
- The “backdoor” II-V
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-advice/improvise-rhythm-changes-like-pro>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/how-to-master-the-backdoor-jazz-chord-progression>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/3-types-tritone-substitution-lick-examples>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-advice/play-giant-steps>
- ❖ Recommended weekly listening: *Giant Steps* (John Coltrane) and *Ladybird* (Dexter Gordon)

Bebop scales:

- Bebop scales/passing tones/surrounding tones
- Writing/composing/improvising bebop lines
- Written bebop scale assignment
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/3-techniques-improve-bebop-playing>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/use-bebop-scales-like-pro>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-licks/using-the-bebop-scale-on-days-of-wine-and-roses>
- ❖ Recommended weekly listening: *Jazz at Massey Hall* (Charlie Parker, Dizzy Gillespie, Bud Powell, Charles Mingus, and Max Roach) and *The Complete Savoy Dial Recordings* (Charlie Parker)

Pentatonic scales:

- Major and minor
- Altered pentatonics
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/simplify-lines-major-pentatonic-scales/>
- ❖ Recommended weekly listening: *Some Skunk Funk* (Brecker Brothers) and *The Real McCoy* (McCoy Tyner)

Form (Time Permitting):

- Structuring a jazz solo
- Common jazz forms and their structures
- Modal vs. tonal structures: challenges and definitions
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-advice/improvise-rhythm-changes-like-pro>
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/stuck-one-chord-strategies-dramatically-improve-modal-jazz-solos>
- ✓ **Start Reading:** *Creative Improvisation: A Concise Method* Part V: Form
- ❖ Recommended weekly listening: *Live at Newport* (Duke Ellington and His Orchestra) and *Unit Structures* (Cecil Taylor)
- Structuring a jazz solo with motifs
- Rhythmic vs. melodic motifs
- ✓ **Read:** <https://www.learnjazzstandards.com/blog/learning-jazz/jazz-theory/how-to-improvise-using-constant-structures>
- ❖ Recommended weekly listening: *The Cole Porter Songbook* (Ella Fitzgerald) and *Maiden Voyage* (Herbie Hancock)

Free Improvisation (Time Permitting):

- Whys and hows
- Structured vs. unstructured
- Using parameters creatively and productively
- ✓ **Listen:** <https://www.learnjazzstandards.com/blog/ljs-podcast/ljs-07-playing-free-can-make-better-improvisor>
- ❖ Recommended weekly listening: *Out to Lunch* (Eric Dolphy) and *The Shape of Jazz to Come* (Ornette Coleman) and *The Koln Concert* (Keith Jarrett), *Graylen Epicenter* (David Binney) and *Body and Soul* (Coleman Hawkins)

The University of Utah General Academic Calendar, which includes important dates and deadlines regarding course registration/withdrawal, exam dates, etc., can be found here: <https://registrar.utah.edu/academic-calendars/>

General Syllabus Note: *This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced in class via email to all students.*

University of Utah Jazz Studies Area Recommended Listening List

<p><u>Early/Traditional/New Orleans Jazz:</u></p> <ul style="list-style-type: none"> • Sidney Bechet (soprano saxophone/clarinet) • Buster Bailey (clarinet/saxophone) • Frankie Trumbauer (saxophone) • Louis Armstrong (trumpet/cornet/vocals) • Bix Beiderbecke (trumpet/piano) • Joe "King" Oliver (cornet/trumpet) • Earl Hines (piano) • Jelly Roll Morton (piano/composer) • Edward "Kid" Ory (trombone) • The Original Dixieland Jass Band (ensemble) <p><u>Swing Era/Big Band:</u></p> <ul style="list-style-type: none"> • Coleman Hawkins (saxophone) • Lester Young (saxophone) • Ben Webster (saxophone) • Johnny Hodges (saxophone) • Al Cohn (saxophone) • Zoot Sims (saxophone) • Illinois Jacquet (saxophone) • Paul Gonsalves (saxophone) • Benny Carter (saxophone, clarinet, trumpet, bandleader) • Benny Goodman (clarinet, bandleader) • Artie Shaw (clarinet, bandleader) • Woody Herman (clarinet, bandleader) • Clark Terry (trumpet) • Roy Eldridge (trumpet) • Cootie Williams (trumpet) • Cat Anderson (trumpet) • Bubber Miley (trumpet) • Charlie Shavers (trumpet) • "Tricky Sam" Nanton (trombone) • Juan Tizol (trombone) • Duke Ellington (piano, bandleader) • Fletcher Henderson (bandleader) • Count Basie (piano, bandleader) • John Kirby (bass, bandleader) • Jimmy Lunceford (bandleader) • Billy Eckstine (bandleader) • Claude Thornhill (bandleader) • Cab Calloway (vocals, bandleader) • Glenn Miller (bandleader) • Paul Whiteman (bandleader) • Jimmy and Tommy Dorsey (bandleaders) • Stan Kenton (bandleader, composer) • Art Tatum (piano) • Billy Strayhorn (piano, composer) • Teddy Wilson (piano) • Errol Garner (piano) • Nat King Cole (piano, vocals) • Slam Stewart (bass) • "Papa Joe" Jones (drums) • Gene Krupa (drums) • Buddy Rich (drums) 	<p><u>Later Bebop/Post-Bop/Hard Bop/Modal Jazz:</u></p> <ul style="list-style-type: none"> • Dexter Gordon (saxophone) • Sonny Rollins (saxophone, composer) • John Coltrane (saxophone, composer) • Wayne Shorter (saxophone, composer) • Joe Henderson (saxophone) • "Cannonball" Adderley (saxophone) • Sonny Stitt (saxophone) • Johnny Griffin (saxophone) • Hank Mobley (saxophone) • Jackie McLean (saxophone) • Benny Golson (saxophone, composer) • Ernie Watts (saxophone) • Scott Hamilton (saxophone) • Charles Lloyd (saxophone) • Sam Rivers (saxophone) • Steve Lacy (saxophone) • Miles Davis (trumpet, bandleader) • Lee Morgan (trumpet) • Thad Jones (trumpet, big band leader) • Nat Adderley (trumpet) • Red Garland (piano) • McCoy Tyner (piano, composer) • Herbie Hancock (piano, composer) • Horace Silver (piano, composer) • Cedar Walton (piano) • Joe Zawinul (piano) • Keith Jarrett (piano) • Bill Evans (piano, composer) • Ahmad Jamal (piano) • Hank Jones (piano) • Elmo Hope (piano) • Oscar Peterson (piano) • Chick Corea (piano) • Phineas Newborn Jr. (piano) • Jim Hall (guitar) • Wes Montgomery (guitar) • Joe Pass (guitar) • Charlie Mingus (bass) • Ron Carter (bass) • Ray Brown (bass) • Sam Jones (bass) • Jimmy Garrison (bass) • Paul Chambers (bass) • Dave Holland (bass) • Scott LaFaro (bass) • Art Blakey (drums) • Elvin Jones (drums) • Paul Motian (drums) • Jimmy Cobb (drums) • Tony Williams (drums) • Jack DeJohnette (drums) • Mel Lewis (drums) • Louis Bellson (drums) • Chico Hamilton (drums) • "Philly Joe" Jones (drums) 	<p><u>Bebop:</u></p> <ul style="list-style-type: none"> • Charlie Parker (saxophone) • Don Byas (saxophone) • Dizzy Gillespie (trumpet) • Clifford Brown (trumpet) • Fats Navarro (trumpet) • J. J. Johnson (trombone) • Thelonious Monk (piano) • Bud Powell (piano) • Charlie Christian (guitar) • Milt Jackson (vibraphone) • Max Roach (drums) • Roy Haynes (drums) • Shadow Wilson (drums) • Kenny Clarke (drums) • Oscar Pettiford (bass) <p><u>Cool Jazz and Third Stream:</u></p> <ul style="list-style-type: none"> • Gerry Mulligan (saxophone) • Stan Getz (saxophone) • Paul Desmond (saxophone) • Lee Konitz (saxophone) • Warne Marsh (saxophone) • Oliver Nelson (saxophone) • Pete Christlieb (saxophone) • Jimmy Giuffre (saxophone, clarinet, arranger) • Bob Brookmeyer (trombone) • Chet Baker (trumpet, vocals) • George Shearing (piano) • John Lewis (piano) • Dave Brubeck (piano) • Lennie Tristano (piano) • Gil Evans (composer, arranger, bandleader) • Gunther Schuller (composer) • Shelly Manne (drums) <p><u>Avant-Garde/Free Jazz:</u></p> <ul style="list-style-type: none"> • Ornette Coleman (saxophone) • Roscoe Mitchell (saxophone) • Eric Dolphy (saxophone) • Anthony Braxton (saxophone) • Albert Ayler (saxophone) • Archie Shepp (saxophone) • Rashaan Roland Kirk (saxophone) • Pharoah Sanders (saxophone) • Julius Hemphill (saxophone) • Dewey Redman (saxophone) • David Murray (saxophone) • Don Cherry (trumpet) • Sun Ra (bandleader) • Association for the Advancement of Creative Musicians (AACM) • Hasaan Ibn Ali (piano) • Herbie Nichols (piano) • Cecil Taylor (piano) • Charlie Haden (bass) • Henry Grimes (bass) • Billy Mintz (drums) • Ed Blackwell (drums) • The Art Ensemble of Chicago (ensemble)
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Singers:

- Ella Fitzgerald
- Billie Holiday
- Betty Carter
- Carmen McRae
- Nat King Cole
- Mel Torme
- Abbey Lincoln
- Johnny Hartman
- Tony Bennett
- Frank Sinatra
- Sarah Vaughn
- Dinah Washington
- Anita O'Day
- Peggy Lee
- Cassandra Wilson
- Dianne Reeves
- Nina Simone
- Gretchen Parlato
- Becca Stevens
- Michael Buble
- Kurt Elling
- Esperanza Spalding
- Diana Krall
- Bobby McFerrin

Fusion:

- Headhunters (ensemble featuring Herbie Hancock)
- Bitches Brew ensemble (Miles Davis ensemble)
- Return to Forever (featuring Chick Corea and Stanley Clarke)
- The Tony Williams Lifetime (ensemble)
- Weather Report (featuring Wayne Shorter, Joe Zawinul, and Jaco Pastorius)
- The Mahavishnu Orchestra (featuring guitarist John McLaughlin)
- Yellowjackets (ensemble)

Modern/Contemporary Jazz:

- David Binney (saxophone)
- Chris Potter (saxophone)
- Michael Brecker (saxophone)
- David Sanborn (saxophone)
- Jan Garbarek (saxophone)
- John Ellis (saxophone)
- Joshua Redman (saxophone)
- Donny McCaslin (saxophone)
- Dick Oatts (saxophone)
- Tony Malaby (saxophone)
- Will Vinson (saxophone)
- Tim Berne (saxophone)
- Seamus Blake (saxophone)
- Eric Alexander (saxophone)
- Bennie Maupin (saxophone)
- Jerry Bergonzi (saxophone)
- Walt Weiskopf (saxophone)
- Bob Mintzer (saxophone)
- Steve Wilson (saxophone)
- David Sanchez (saxophone)
- Miguel Zenon (saxophone)
- Joe Lovano (saxophone)
- Dave Liebman (saxophone)

Modern/Contemporary Jazz (Continued):

- Ravi Coltrane (saxophone)
- Sam Newsome (saxophone)
- Rudresh Mahanthappa (saxophone)
- Ben Wendel (saxophone)
- Gary Bartz (saxophone)
- Greg Osby (saxophone)
- John Zorn (saxophone, composer)
- John Daversa (trumpet, bandleader)
- Randy Brecker (trumpet)
- Alex Sipiagin (trumpet)
- Ambrose Akinmusire (trumpet)
- Shane Endsley (trumpet)
- Dave Douglas (trumpet)
- Pat Metheny (guitar)
- Bill Frisell (guitar)
- Wayne Krantz (guitar)
- Adam Rogers (guitar)
- Nir Felder (guitar)
- John Abercrombie (guitar)
- Kurt Rosenwinkle (guitar)
- Charlie Hunter (guitar)
- Ben Monder (guitar)
- Nels Cline (guitar)
- Jacob Sacks (piano)
- Jason Moran (piano)
- John Escreet (piano)
- Jean-Michel Pilc (piano)
- Brad Mehldau (piano)
- Craig Taborn (piano)
- Matt Mitchell (piano)
- Tigran Hamasyan (piano)
- Taylor Eigsti (piano)
- Kenny Barron (piano)
- Marc Copland (piano)
- Uri Caine (piano)
- Ed Simon (piano)
- Kenny Werner (piano)
- Danilo Perez (piano)
- John Patitucci (bass)
- Michael Formanek (bass)
- Todd Sickafoose (bass)
- Scott Colley (bass)
- Miroslav Vitous (bass)
- Drew Gress (bass)
- Ben Street (bass)
- Gary Peacock (bass)
- Eivind Opsvik (bass)
- Matt Brewer (bass)
- Thomas Morgan (bass)
- Dan Weiss (drums)
- Antonio Sanchez (drums)
- Ari Hoenig (drums)
- Joey Barron (drums)
- John Hollenbeck (drums)
- Brian Blade (drums)
- Adam Cruz (drums)
- Nate Wood (drums)
- Mark Guiliana (drums)
- Jim Black (drums)
- Stefon Harris (vibraphone)
- Maria Schneider (composer, bandleader)
- Florian Ross (composer)
- Mike Holober (composer, piano)

Modern/Contemporary Jazz (Continued):

- Kneebody (ensemble)
- The Claudia Quintet (ensemble)
- The Bad Plus (ensemble)

Blues/Soul/Rhythm and Blues/Funk:

- Robert Johnson
- Mississippi John Hurt
- Louis Jordan
- Bessie Smith
- Leadbelly
- Frank Stokes
- Memphis Slim
- Charley Patton
- Elmore James
- Howlin' Wolf
- John Lee Hooker
- Muddy Waters
- Koko Taylor
- Lightnin' Hopkins
- T-Bone Walker
- B.B. King
- James Brown
- Curtis Mayfield
- Al Green
- Tower of Power
- Sly and the Family Stone
- The Neville Brothers
- Marvin Gaye
- Earth, Wind, and Fire
- Bill Withers
- Kool and the Gang
- The Staples Singers
- Bobby Darin
- Buddy Holly
- The Drifters
- Jerry Lee Lewis
- Little Richard
- Bo Diddley
- The Temptations
- The Parliaments
- Isaac Hayes
- Aretha Franklin
- Michael Jackson
- The Islye Brothers
- Phoebe Snow
- The Spinners
- Stevie Wonder
- Albert King
- Blind Lemon Jefferson
- Stevie Ray Vaughn
- Jimi Hendrix
- Big Bill Broonzy
- Son House
- Willie Dixon
- Ray Charles
- Buddy Guy
- Memphis Slim
- Little Richard
- Johnny Otis
- Otis Rush
- Chuck Berry
- Otis Redding
- Parliament/George Clinton/Bootsy Collins

Medieval/Early Music:

- Perotin/Leonin
- Guillaume de Machaut
- Hildegard von Bingen
- Bernart de Ventadorn
- Philippe de Vitry

Renaissance:

- Guillaume Dufay
- Johannes Ockeghem
- Josquin des Prez
- Thomas Tallis
- Giovanni Pierluigi da Palestrina
- Orlando di Lassus
- William Byrd
- Giovanni Gabrieli
- Carlo Gesualdo
- Thomas Campion

Baroque:

- Claudio Monteverdi
- Girolamo Frescobaldi
- Heinrich Schutz
- Jean-Baptiste Lully
- Dietrich Buxtehude
- Johann Pachelbel
- Arcangelo Corelli
- Henry Purcell
- Alessandro Scarlatti
- Francois Couperin
- Antoni Vivaldi
- Georg P. Telemann
- Jean-Philippe Rameau
- Johann Sebastian Bach
- Domenico Scarlatti
- Georg F. Handel

Classical:

- C.P.E. Bach
- J.C. Bach
- C.W. Gluck
- Joseph Haydn
- Luigi Boccherini
- Wolfgang A. Mozart
- Ludwig van Beethoven

Hindustani (North Indian Classical Music):

- Nikhil Banerjee
- Anindo Chatterjee
- Zakir Hussain
- Ravi Shankar
- Sameer Gupta
- Rudresh Mahanthappa
- Dan Weiss

Any Bulgarian, Hungarian, Armenian Music:

- Chookasian Ensemble (Armenian)

Any Arabic/Takht/Maqam:

- Munir Bachir and Mohammed El-Bakkar

Any Traditional Beijing Opera or Japanese Gagaku

Romantic/Nationalist/Late Romantic:

- Franz Schubert
- Hector Berlioz
- Robert Schumann
- Felix Mendelssohn
- Frederic Chopin
- Franz Liszt
- Richard Wagner
- Johannes Brahms
- Anton Bruckner
- Pyotr Illych Tchaikovsky
- Alexander Scriabin
- Sergei Rachmaninoff
- Gustav Mahler
- Richard Strauss
- Giuseppe Verdi
- Gaetano Donizetti
- Johann Strauss (I and II)
- Josef Strauss
- Gioacchino Rossini
- Nicolo Paganini
- Jacques Offenbach
- Georges Bizet
- Bedrich Smetana
- Camille Saint-Saens
- Alexander Borodin
- Antonia Dvorak
- Edvard Grieg
- Nicolai Rimsky-Korsakov
- Gabriel Faure
- Edward Elgar
- Giacomo Puccini
- Jean Sibelius
- Leos Janacek
- Gustav Holst
- Eric Satie
- Ralph Vaughn Williams

Brazilian Music:

- Milton Nascimento
- Djavan
- Joao Gilberto
- Gilberto Gil
- Ivan Lins
- Caetano Veloso
- Hermeto Pascoal
- Antonio Carlos Jobim
- Elis Regina
- Astrud Gilberto
- Joao Bosco

Other Latin American Music:

- Michel Camilo
- Maraca
- Mongo Santamaria
- Rebeca Mauleon
- Buena Vista Social Club
- Ruben Blades
- Celia Cruz
- Tito Puente
- Cal Tjader
- Eddie Palmieri

20th Century/Modernist:

- Igor Stravinsky
- Arnold Schoenberg
- Alban Berg
- Anton Webern
- Dmitri Shostakovich
- Olivier Messiaen
- Bela Bartok
- Morton Feldman
- Luciano Berio
- Maurice Ravel
- Claude Debussy
- Iannis Xenakis
- Pierre Boulez
- Luigi Dallapiccola
- Pierre Schaefer
- Benjamin Britten
- Karlheinz Stockhausen
- George Crumb
- Charles Ives
- Edgar Varese
- John Cage
- Gyorgy Ligeti
- Sergei Prokofiev
- Darius Milhaud
- Zoltan Kodaly
- Paul Hindemith
- John Corigliano
- George Gershwin
- Harry Partch
- Kurt Weill
- Aaron Copland
- Terry Riley
- Krzysztof Penderecki
- Aram Khachaturian
- Samuel Barber
- Witold Lutoslawski
- David Del Tredici
- Milton Babbitt
- Arvo Part
- Philip Glass
- Toru Takemitsu
- Steve Reich

African Music:

- Prince Diabate
- Johnny Clegg and Juluka
- Miriam Makeba
- Ballake Sissoko
- Oumou Sangare
- Neba Solo
- Angelique Kidjo
- Hugh Masakela
- Ba Cissoko
- Vusi Mahlasela
- Habib Koite
- Ladysmith Black Mambazo
- Boubacar Traore
- Ali Farka Toure
- Cesaria Evora

Any Indonesian Gamelan Ensembles:

- Gamelan Sekar Tunjung and Shekeha Gamelan



University of Utah Jazz Studies Program

Jazz Solo Transcription Guidelines for Jazz Studies Juries

Rationale:

Since its inception, jazz has been primarily dominated by *improvisation* in the context of small ensembles or combos. To improvise authentically in the jazz style, musicians must know the historical musical conventions of jazz. Jazz is very much like a language. Each language has its own vocabulary (melodies, licks, tunes, scales, etc.), syntax (chords and chords progressions, song forms, etc.), and dialects with different accents (different substyles of jazz such as bebop, swing, hard-bop, cool jazz, etc.), etc. The best way to learn a language is to listen to and imitate native speakers and then to attempt conversations with them. In the context of learning jazz, studying “native speakers” is equivalent to listening to and imitating classic recordings made by great improvisers. The transcription process outlined below is merely a method of formalizing what jazz musicians have always done, which is learn vocabulary by ear through the direct imitation of jazz masters.

Transcriptions:

One of the best ways to learn and absorb new vocabulary is to transcribe improvised solos performed by jazz masters. Over the course of the semester, students will transcribe at least one solo. Solos for transcription should be selected from recordings of historically significant jazz artists active during the time period of the 1930s–1960s. Please seek Dr. Boornazian’s or the instructor’s approval (via email) of your artist and recording selection for your transcriptions before beginning the assignments.

The Transcription Process:

1. Select a solo and get written approval (via email) from the instructor.
2. Solos should be at least between 24-36 measures in length (this means you should transcribe at least 1 chorus of a 32-bar jazz standard or 2–3 choruses of a 12-bar blues).
3. Locate a high-quality recording of the approved solo.
4. Memorize the melody and chord changes to the head of the song that the solo was improvised over, if you don’t already know the tune (the whole point is to learn *what types of melodies/scales/chords the improviser plays over a given set*

of chord changes, so it's absolutely essential to learn the tune you're studying first BEFORE transcribing the improvised solo).

5. Listen to the recording with focused attention 5–10 times in a row. Focus on trying to get the melodies and phrases of the improvised solo stuck in your head.
6. Sing along with the improvised solo several times. Don't worry if you can't sing it perfectly in tune. Just do the best you can to match the melodic contour and the rhythm of the version you're studying. Break the solo up into as small of melodic chunks as is necessary to help you get through this process.
7. Play the improvised solo along with the recording by ear. If you can't figure it out phrase by phrase, break down each phrase into smaller chunks. Use the pause and rewind feature of your audio playback device often (you can also use an app or a digital audio workstation to slow down the recording or loop parts of it if you find this helpful). You can even take it note-by-note if needed. Use your ears and your instrument to help you figure out the notes in the solo by trial and error. If you don't get the right note on your first 1–3 attempts, then pick one note to focus on and go up or down in half steps methodically until you find the right note.
8. After you learn the solo by ear, repeat it at least 5–10 times while playing along with the recording, and then 5–10 time unaccompanied (use a metronome if this will help you keep time).
9. Write down the transcription by hand or by using music notation software; also include graphical analysis on the musical score.
10. Write a one-page minimum (double spaced) analysis in which you explain what you think the soloist was most likely thinking about while constructing their solo and why (be sure to refer to specific measures by number as evidence for your claims in the analysis).
11. Submit your written analyzed transcription and written prose analysis on the day the transcription is due.
12. Be prepared to perform your transcribed solo *live* along with the recording on jury day.
13. The of digital audio workstations (ProTools, Ableton, Audacity, Logic, etc.) and/or slowdown/looper tools such as *Transcribe!* Is permitted for transcription projects.
14. **A sample transcription with written prose analysis is attached below.**

Josiah Boornazian, DMA
University of Utah
August 20, 2022

Solo Analysis: Gary Bartz on “Ju Ju Man”

Saxophonist Gary Bartz stands out as an alto saxophonist who successfully crafted a compelling musical identity by exploring many diverse jazz influences in the decades following the 1950s. Following some less successful and more pop-oriented recordings made in the early 1970s, the saxophonist released the more “straight-ahead” jazz recording *Ju Ju Man* in 1976—one of the “best albums” of his career—which helped to establish his reputation as an important alto player.¹ An examination of Bartz’s solo on the title track from *Ju Ju Man* will serve to highlight the characteristics of his playing that made him a musical touchstone for members of subsequent generations of saxophonists.

On “Ju Ju Man,” Bartz deploys a constellation of musical techniques that have become standard practice for today’s jazz saxophonists who labor in a postmodern musical environment. Bartz’s style could be described as a potent mixture of post-bop, post-fusion, and post-avant-garde. To craft his particular approach to improvisation, he collects workable aesthetic devices from these as well as many other jazz and non-jazz traditions. Key elements of Bartz’s playing include his use of extended instrumental techniques (such as growl tones, intentionally cracked notes, and false fingerings), implied harmonic superimpositions, and other advanced compositional and improvisational strategies (such

¹ Scott Yanow, “AllMusic Review [of Gary Bartz’s 1976 album *Ju Ju Man*] by Scott Yanow,” *AllMusic*, accessed September 30, 2017, <http://www.allmusic.com/album/juju-man-mw0000512515>.

as motivic development and the manipulation of emotional tension using dissonance and consonance).

During his solo on “Ju Ju Man,” Bartz displays an impressive command of extended instrumental techniques which, though exploited by earlier tenor saxophonists such as John Coltrane and Albert Ayler, are not heard as frequently on the alto saxophone. In addition to standard jazz devices such as bent pitches and blue notes, Bartz uses growl tones and false fingerings with a pronounced effect. He tends to use growl tones as an attention-grabbing tactic while holding out long notes, such as in measures 52–53 and 100–103 of the solo transcription. Bartz tends to use false fingerings during highly rhythmic passages, which intensify the energy of his solo as it approaches its emotional climax; an example occurs in measures 117–122. Bartz’s solo features melodic vocabulary that demonstrates his awareness of the bebop, hard-bop, and avant-garde styles of jazz. He mixes diatonic melodic phrases with bebop-like surrounding tones (e.g., in measures 23–26), hard-bop style modal elements (e.g., the opening twenty measures of his solo), and avant-garde dissonance achieved through chromaticism and implied harmonic superimpositions (e.g., in measures 56–58).

Bartz sets up a large-scale narrative arc with his solo by leveraging consonance and dissonance as a means of generating emotional tension and release. In addition to adding more complex rhythms and busier phrases as his solo progresses, Bartz builds musical energy by slowly increasing his use of melodic dissonance. Since the entire solo is improvised over an E7sus chord, Bartz often treats it as a harmonically open vamp in order to expand his melodic and harmonic options. He starts his solo with consonant melodies which derive their pitch content from the E Mixolydian mode. He particularly favors the

major pentatonic sound in the opening twenty measures of his solo. As his solo continues, he gradually introduces more dissonant elements, starting with chromatic surrounding tones. He eventually ventures farther away from the tonal center of E Mixolydian. Sensing the increased emotional energy Bartz generates, the rhythm section builds tension along with the saxophonist by increasing its dynamic level and the rhythmic complexity and activity of its comping. The solo's energy is powerful, and Bartz presents a prototypical model for structuring an effective improvisation over a vamp. This kind of solo arc can still be heard among many of today's jazz saxophonists.²

² For one clear example, see David Binney's solo on "PF" from his 2005 album *Bastion of Sanity* (Criss Cross Jazz 1261), <https://www.crisscrossjazz.com/album/1261.html>.

Gary Bartz Solo Transcription

“Ju Ju Man” from *Ju Ju Man* (1976)

Alto Saxophone (Transposed)

2:03

E7(sus4)

half-time 6/8 feel implied

Musical notation for measures 1-3. The key signature is one sharp (F#). The time signature is 4/4. Measure 1 contains a triplet of quarter notes: F#4, G4, A4. Measure 2 contains a triplet of quarter notes: B4, C5, D5. Measure 3 contains a triplet of quarter notes: E5, F#5, G5. A bracket spans all three measures.

A major pentatonic

Musical notation for measures 4-7. Measure 4: F#4, G4, A4, B4, C5, D5. Measure 5: E5, F#5, G5, A5, B5, C6. Measure 6: D6, E6, F#6, G6, A6, B6. Measure 7: C7, B6, A6, G6, F#6, E6. A bracket spans measures 4-7.

Musical notation for measures 8-11. Measure 8: F#4, G4, A4, B4, C5, D5. Measure 9: E5, F#5, G5, A5, B5, C6. Measure 10: D6, E6, F#6, G6, A6, B6. Measure 11: C7, B6, A6, G6, F#6, E6. A bracket spans measures 8-11.

clear motivic development

Musical notation for measures 12-15. Measure 12: F#4, G4, A4, B4, C5, D5. Measure 13: E5, F#5, G5, A5, B5, C6. Measure 14: D6, E6, F#6, G6, A6, B6. Measure 15: C7, B6, A6, G6, F#6, E6. A bracket spans measures 12-15.

Musical notation for measures 16-18. Measure 16: F#4, G4, A4, B4, C5, D5. Measure 17: E5, F#5, G5, A5, B5, C6. Measure 18: D6, E6, F#6, G6, A6, B6. A bracket spans measures 16-18.

Musical notation for measures 19-22. Measure 19: F#4, G4, A4, B4, C5, D5. Measure 20: E5, F#5, G5, A5, B5, C6. Measure 21: D6, E6, F#6, G6, A6, B6. Measure 22: C7, B6, A6, G6, F#6, E6. A bracket spans measures 19-22.

bebop/hard bop vocabulary — first introduction of chromaticism/dissonance

Musical notation for measures 23-26. Measure 23: F#4, G4, A4, B4, C5, D5. Measure 24: E5, F#5, G5, A5, B5, C6. Measure 25: D6, E6, F#6, G6, A6, B6. Measure 26: C7, B6, A6, G6, F#6, E6. A bracket spans measures 23-26. An arrow points to the F#4 note in measure 23, labeled "passing tone". A bracket spans measures 24-26, labeled "surrounding-tone gesture".

more melodic development of themes and fragments stated previously

Musical staff 27-30: Treble clef, 4/4 time. Measures 27-30. A bracket under measures 27-30 is labeled "C#m7 chord shape". The melody consists of eighth and quarter notes with accents and slurs.

C#m7 chord shape

Musical staff 31-34: Treble clef, 4/4 time. Measures 31-34. The melody continues with eighth and quarter notes, including slurs and accents.

Musical staff 35-39: Treble clef, 4/4 time. Measures 35-39. A bracket under measures 35-39 is labeled "E major pentatonic". A wavy line above measure 36 is labeled "slight growl tone".

E major pentatonic

Musical staff 40-44: Treble clef, 4/4 time. Measures 40-44. The melody features chromaticism and dissonance, with slurs and accents.

more chromaticism/dissonance incorporated to build tension

Musical staff 45-49: Treble clef, 4/4 time. Measures 45-49. A bracket under measures 45-49 is labeled "surrounding-tone gesture". A bracket above measures 47-48 is labeled "Bb7sus". A bracket under measures 48-49 is labeled "surrounding-tone gesture".

surrounding-tone gesture

surrounding-tone gesture

Musical staff 50-55: Treble clef, 4/4 time. Measures 50-55. A wavy line above measure 50 is labeled "slight growl tone". The melody is dissonant with slurs and accents.

dissonant line with implied harmonic superimpositions

Musical staff 56-60: Treble clef, 4/4 time. Measures 56-60. A bracket under measures 56-57 is labeled "A major triad". A bracket above measures 57-58 is labeled "Bbsus". A bracket above measures 58-59 is labeled "Gm7". A bracket above measures 59-60 is labeled "chromatic 4ths". A bracket under measures 58-60 is labeled "implied C half-diminished 7th".

A major triad

implied C half-diminished 7th

more melodic development of themes and fragments stated previously

60

65

(laid back)

70

more dissonant lines with implied harmonic superimpositions

(blue notes, somewhere between C# and D)

75

Gm7

C diminished fragment

79

G# minor fragment

G melodic minor fragment

Ab major implied

(cracked)

83

C diminished fragment

implied G half-diminished 7th

implied E altered (with chromatic approach)

implied G minor

88 (cracked)

implied B7

harmonically ambiguous (could imply A and/or D blues sound)

92

(rushed)

96

melodic sequence

slight growl tone 

100

slight growl tone 

rhythmic motive developed
in subsequent phrases

105

111

repeated notes building tension/energy

117

rhythmic displacement

loose approximation of these phrases



141

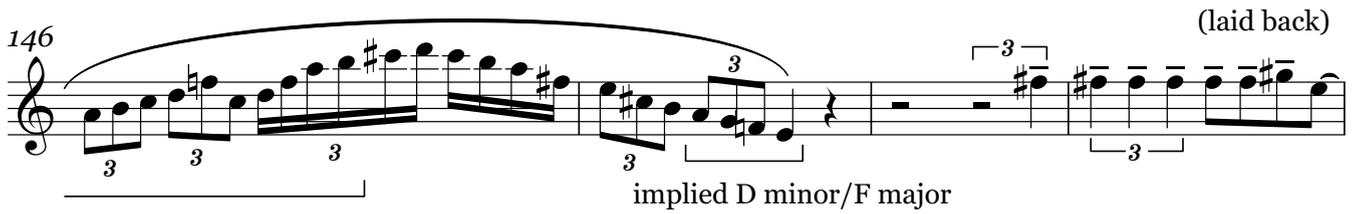
↑
passing tone

3 3 3

implied D minor/F Lydian

Detailed description: This musical staff shows measures 141 to 145. Measure 141 starts with a half note G4, followed by a dotted quarter note A4, and a quarter note B4. Measure 142 contains a half note C5, a quarter note B4, and a quarter note A4. Measure 143 features a half note G4, a quarter note F4, and a quarter note E4. Measure 144 has a half note D4, a quarter note C4, and a quarter note B3. Measure 145 begins with a half note A3, followed by a dotted quarter note G3, and a quarter note F3. A bracket above measures 144 and 145 is labeled "loose approximation of these phrases". An upward-pointing arrow under measure 142 is labeled "passing tone". Trills of three notes are indicated by "3" above the notes in measures 144 and 145. The text "implied D minor/F Lydian" is positioned below the staff.

tension/energy of solo unwinds



146

3 3 3 3

implied D minor/F major

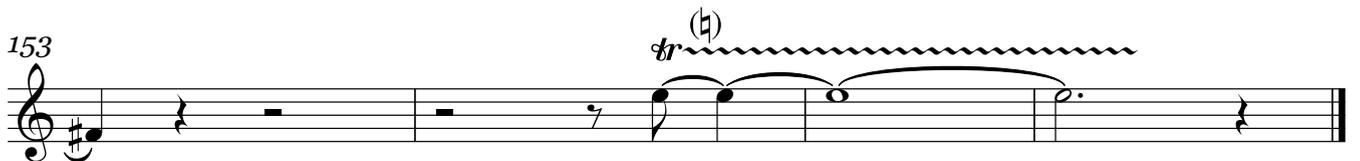
(laid back)

Detailed description: This musical staff shows measures 146 to 149. Measure 146 contains a half note G4, a dotted quarter note A4, and a quarter note B4. Measure 147 has a half note C5, a quarter note B4, and a quarter note A4. Measure 148 features a half note G4, a quarter note F4, and a quarter note E4. Measure 149 has a half note D4, a quarter note C4, and a quarter note B3. A bracket above measures 146 and 147 is labeled "tension/energy of solo unwinds". Trills of three notes are indicated by "3" above the notes in measures 146, 147, 148, and 149. The text "(laid back)" is positioned above measure 149. The text "implied D minor/F major" is positioned below the staff.



150

Detailed description: This musical staff shows measures 150 to 152. Measure 150 contains a half note G4, a dotted quarter note A4, and a quarter note B4. Measure 151 has a half note C5, a quarter note B4, and a quarter note A4. Measure 152 features a half note G4, a quarter note F4, and a quarter note E4. A bracket above measures 150 and 151 is present.



153

tr (4)

Detailed description: This musical staff shows measures 153 to 155. Measure 153 contains a half note G4, a dotted quarter note A4, and a quarter note B4. Measure 154 has a half note C5, a quarter note B4, and a quarter note A4. Measure 155 features a half note G4, a quarter note F4, and a quarter note E4. A trill is indicated by "tr" above the notes in measure 154, with a circled "4" above it. A wavy line above the trill indicates a tremolo effect.

Note: a "+" sign above a pitch indicates a false fingering and/or overtone fingering

Part IV: Melody and Harmony

Introduction

In addition to timbre and rhythm, two of the other very important and fundamental aspects of music are the interrelated concepts of **harmony and melody**. These broad musical concepts deal with the organization and derivation of pitch content and include such topics as scales, chords, chord progressions, tonality, atonality, serialism, and melodic structure, among others. Although there are a wide variety of contrasting yet viable approaches to pitch organization worldwide, I will focus only on theories and vocabulary derived from the twelve chromatic notes of the standard (and equal-tempered) Western scale for the purposes of this book. Although they are beyond the scope of this book, I recommend you supplement your study of Western music theory by exploring the rich and complex harmonic and melodic worlds of micro-tonality, Hindustani music, spectral music, Arabic *maqam*, Chinese and Japanese music, gamelan music, and other non-Western (or non-standard practice) musics.

It is important to note that **melodic structures are inherently related to harmonic structures**. Melodies are collections of pitches played one note after another in time, and harmony refers to the relationships that result from multiple pitches sounding simultaneously. In music, melody and harmony mutually influence each other; harmonies and melodies work hand-in-hand (along with all the other elements of music) to help create the emotional meaning of the music. An unaccompanied melody all by itself always implies some sort of harmony, and similarly chords played by themselves with no obviously perceptible melody still have a melodic structure created by the movement of the highest (and thus most noticeable) pitches of the chords as well as the voice-leading created by the melodic movement of the inner voices of the harmonies.

Consonance and Dissonance

An important melodic/harmonic idea to consider as you work through the fundamentals of music and develop your own melodic and harmonic vocabulary is the concept of **consonance** vs. **dissonance**. Consonance refers to the notion that a musical idea, a moment in a piece of music, or music in general feels relaxed or at rest (i.e. lacks musical/emotional tension). Dissonance on the other hand refers to the notion of perceptible musical/emotional tension. **Consonance and dissonance are highly relative concepts**. Take the following comparison using an altered-dominant seventh chord as an illustration: if you play a simple major triad in root position in the middle register of an in-tune piano (e.g. play the pitches C-E-G simultaneously), and then play any altered dominant chord (e.g. play C-E-Bb-Db-Gb in ascending order simultaneously) immediately afterward, the altered-dominant chord will most likely sound dissonant or tense compared to the major triad. However, if you then play a tone cluster where you play eight or more adjacent chromatic pitches (e.g. C-C#-D-Eb-E-F-Gb-G played simultaneously) and then play the same altered-dominant chord immediately after the cluster harmony, the exact same altered-dominant chord which sounded dissonant or tense when compared to major triad will now sound positively consonant or relaxed compared to the eight-

note chromatic cluster which sounds relatively dissonant. Given the relativity of consonance and dissonance, it is important that you keep these concepts in mind as you develop your musical vocabulary; in time you will learn to discern for yourself where your personal tastes lie on the continuous spectrum of consonance and dissonance, and then you can develop your own vocabulary according to your musical preferences. As you study and internalize new musical vocabulary, take note of the relative consonance and dissonance of the ideas you are working on, and learn to manipulate consonance and dissonance in your music through practical exploration (i.e. trial and error) in order to maximize your expressive efficacy as a performer and composer.

Learn Through Repetition

While studying melody and harmony, make it your goal to learn to recognize melodic and harmonic vocabulary by ear (as well as in written form) through practice, repetition, and transcription. As part of your exploration of melody and harmony, strive to internalize a wide range and variety of musical vocabulary. In addition to practicing melodic and harmonic structures on your instrument, you should sing scales, intervals, scale patterns, chords, and the other fundamental building blocks of melody and harmony. Practice singing just as you practice your instrument: sing along with recordings, play piano or guitar and sing along, sing unaccompanied, and try using melodic drones (e.g. *tanpura* drones) as well to help you develop your musical ear.

Basic Pitch Organization

Individual pitches are the fundamental building blocks of musical vocabulary, and in the Western music tradition, pitches are organized into systems of scales, intervals, and chords which have been handed down to modern musicians from the Ancient Greeks (and perhaps from even earlier) via Medieval musicians (for more details about the history and development of music theory, see the history texts listed below in the recommended reading section at the end of this book).

Here is a list of melodic and harmonic elements you should practice in order to establish a firm foundation of musical theory and vocabulary (be sure to practice each element below until you can play them all at a wide variety of tempos in all registers of your instrument with smooth technique and consistent control of pitch, time, timbre, dynamics, finger movement, etc.):

- **Scales:** The foundational scales of Western music are the **chromatic scale**, which comprises all twelve pitches in the Western inventory of musical pitches, the **diatonic scales**, and a variety of other scales (which include **bebop scales**, **modes**, **hexatonics**, and **pentatonics**). See Section 1 in the Melodic and Harmonic Supplement Section for a syllabus of scales to practice, memorize, sing, and internalize.
 - The chromatic scale is constructed using only half steps, which is the smallest interval in Western music; the patterns for other scales mix whole steps and half steps (in addition to occasional augmented seconds, which are enharmonically equivalent to minor thirds, as well as thirds, fourths, and tritones).

- Some scales are symmetrical, meaning their intervallic pattern is such that they duplicate themselves when transposed to certain keys, and therefore they have a limited number of possible transpositions before they repeat themselves – these types of scales are called modes of limited transposition and include the chromatic scale, the diminished scale, the whole tone scale, and the augmented (hexatonic) scale.
- Practice scales both with and without a metronome in every possible register of your instrument and with varying articulations and inflections. Break up the scales you practice into different **intervallic patterns** to begin the process of generating varied melodic vocabulary (See Section 1 in the Melodic and Harmonic Supplement Section for examples of common scale patterns to practice).
- **Intervals:** Practice and internalize the various basic **intervals** or dyads (two-note chords) that are possible within the Western harmonic system. See Section 2 in the Melodic and Harmonic Supplement Section for a syllabus of dyads.
- **Chords:** Practice and internalize the various basic **chords** and **chord voicings** (including triads, seventh chords, and extended chords, which are chords with more than 4 notes, usually stacked in thirds) that are possible within the Western harmonic system. You should practice chords harmonically (i.e. play all of the pitches of the chords simultaneously) on a chordal instrument such as the piano or guitar so that you can hear and learn to recognize each chord's particular sonic quality. Then, you should also practice every chord by arpeggiating the chords on your instrument and with your voice (i.e. play and sing all of the pitches in the various chords as a melody one note at a time). Pay special attention to triads, because they are so common in Western music, they have a powerful and identify quality, and therefore can be very useful pieces of vocabulary for musicians, regardless of the stylistic context or whether triads are used in a traditional functional, tonal context or not. See Section 3 in the Melodic and Harmonic Supplement Section for a syllabus of chords and voicings.
- **Tonality:** Study and internalize the harmonic language of **tonality** in common-practice Western classical music (which includes roughly Baroque music up through late Romantic music). Tonality, which is based mostly on triads and seventh chords derived from the major, natural minor, melodic minor, and harmonic scales, is a system of organizing pitches in a clear hierarchy where the root, or tonic (the first note of the scale the music is based on; i.e. also the name key that composition is in), is the most important pitch. Every other individual pitch and aspect of harmony is used in terms of how it relates to the power of the tonic; the music focuses on using this hierarchy (where every pitch and clearly defined standard chord has an unambiguous function and tendency) to create tension and release. Tonality is important because a substantial proportion of Western music is tonal, including a large amount of jazz, classical, and popular music. In fact, the majority of the folk and art music in the world is tonal (according to Susanni and Antokoletz, on page 66 of *Music and Twentieth-Century Tonality*; see the recommended reading section at the end of this book for more details), and in my experience most tonal music uses predominantly only triads and seventh chords, with occasional extended chords. Although it is beyond the scope of

this book to go into serious detail about tonality, see Section 4 in the Melodic and Harmonic Supplement Section below for a brief introduction to the fundamentals of tonality.

- **Chord Progressions and Voice-Leading:** Practice and internalize the various common **chord progressions** that appear in Western music. Practice them by arpeggiating the chords in the progressions in various directions and inversions and by practicing **guide-tones** (which are notes within chords you can use as a starting point to generate melodies that emphasize the **voice-leading**, or movement of the inner melodic voices, inherent within harmonic progressions). Practice guide-tones by themselves and by using **approach-tones** (also called **surrounding tones**) which are forms of passing tones (non-harmonic and/or non-chord tones used to add color and chromaticism to melodic lines). See Section 5 in the Melodic and Harmonic Supplement Section for example exercises using common chord progressions and guide-tones.
- **Melodic/Harmonic Devices and Structures:** Begin to create, practice, and internalize the infinite variety of **melodic/harmonic shapes** or **cells** that are possible within the Western system, including the popular **1-2-3-5 patterns** (and their permutations) and the concept of **polytonality** (I recommend you explore Igor Stravinsky's work for wonderful examples of polytonality, especially his ballets *Petrouchka* and the *Rite of Spring*). See Section 6 in the Melodic and Harmonic Supplement Section for examples. I also recommend my own etude book *20 Advanced Etudes for Solo Saxophone* (originally published in 2015 as *20 Modernist Etudes, Saxophone Today – saxophonetoday.com*, revised and republished 2016 on Learn Jazz Standards.com) for additional practical examples of these compositional/improvisational techniques in action.
- **Serialism:** Begin to explore the possibilities inherent in the **12-tone** or **serialist system** of pitch organization, as originated by Arnold Schoenberg (and explore his music as well as the music of his students Alban Berg and Anton Webern) through focused listening in order to absorb his unique approach to generating musical vocabulary. See Section 7 in the Melodic and Harmonic Supplement Section for a brief introduction to **serialism**.

Develop Your Own Vocabulary

It is interesting to note that of all of the innumerable possible combinations of the twelve chromatic pitches, Western music focuses on a relatively small number of fundamental pitch combinations (the most common of which are the major scale and the modes and triads/chords derived from it). Just as in everyday language and speech, we use a relatively small amount of vocabulary (rearranged in various ways) to express a wide variety of ideas (for details about this hierarchical phenomenon in music, language, human events, and nature, I recommend studying Zipf's law, also called the Zipf-Mandelbrot law which is related to the Pareto principle, and the power law, which basically states that the frequency of occurrence of minor and major events/pieces of vocabulary follow a predictable pattern; see the recommendations for further reading at the end of this book for more information and references). What this means for practical musical application is that you should focus on the *process* of developing your own new musical ideas, and this process requires relatively few pieces of concrete vocabulary to begin with. Again the emphasis is on quality as opposed to quantity, and you should focus on

developing the ability to generate a wide variety of expressive musical ideas (i.e. musical phrases) with the smallest amount of source material possible (i.e. specific rhythms, melodies, harmonies, dynamic expressions, etc.) in order to maximize your creative ability.

So, as you practice these and other melodic and harmonic structures, always be conscious of where (i.e. in what musical contexts and how) you can apply these concepts and pieces of vocabulary. Try applying the vocabulary you are working on by imposing your musical structures on jazz standards or other harmonic progressions. Also try creating or improvising your own original compositions using the concepts you are studying. Composition is a great tool to assist you as you try to work out your own melodic and harmonic ideas and develop your own personalized and individualistic melodic and harmonic aesthetic.

In addition to composing, in order to assemble an ever-widening personal arsenal of musical vocabulary, try transcribing musical expressions you find compelling, and study the scores for compositions you enjoy. Widen your horizons as you consider the broad variety of possible sources you can draw from as you seek out new inspirations to expand your melodic and harmonic lexicon. Learn vocabulary from styles of music that are different from your main focal style. Study vocabulary from instruments other than your own. Listen to and absorb music from cultures and time periods that differ from your own personal musical background. Then, as you master pieces of musical vocabulary, the next step is to take what you have learned and personalize it. Take vocabulary you have a firm grasp on and vary it, change it, morph it, deconstruct it, rework it, recompose it, and develop it into your own unique vocabulary which could, but does not necessarily have to, still fit in with the musical idiom you began with.

Strive for “Authenticity”

As you practice, compose, and perform, always remember that there is a difference between learning vocabulary as an *exercise* and actually improvising/composing. Study the material I present here profusely; use repetition and imitation in the practice room to internalize musical vocabulary. Practice practically applying the vocabulary you are working on to simulated real-life situations during your practice sessions. But ultimately, avoid the potential pitfall of becoming robotic in your use of musical vocabulary; do not merely memorize and mindlessly regurgitate the material you have practiced when you improvise in real-life scenarios. Also, constantly challenge yourself to discover new musical vocabulary either through pure invention or by recombining, reorganizing, restructuring, and varying vocabulary you have already mastered.

“Authentic” and meaningful improvisation demands that you live and act in the moment; you must react to what is happening around you and seek out an honest and authentic mode of musical expression. Just like with conversation, improvisation is most effective and meaningful when you listen to what others around you are expressing and then react in an appropriate and expressive manner. Expressive, emotional, and musical communication is ineffective and not valuable if you approach it as if it is simply a series of mechanical equations in which you plug in memorized algorithms. You would not be an effective communicator if you approached every verbal conversation the exact same way; different conversations with different people in

different contexts all require a different approach, a different tone, and a different set of vocabulary. Likewise, you cannot have a meaningful conversation if you only communicate by regurgitating the exact same pre-memorized thoughts over and over again. Improvising music functions exactly the same way.

You should not approach a solo, a composition, an exchange of musical ideas, or any musical situation involving improvisation with a rigid mindset based on memorization and thoughtless reiteration. In other words, just like you would not approach a conversation with a predetermined script, you should not approach improvisation with the intent of merely repeating preset ideas you worked out in your practice sessions. In life, you do not plan out your conversations phrase-by-phrase beforehand and then force your predetermined ideas into your conversations regardless of the topic and context of the conversation; you should apply the same principles when improvising. While improvising, utilize (and recombine/reorganize) the vocabulary you have developed to construct meaningful ideas in direct reaction to what is happening around you in the present moment. Do not indiscriminately regurgitate ideas you have been practicing while ignoring the musicians and the musical context around you. Improvisation and conversation both involve listening and reacting in real time in an authentic and meaningful way to those you are communicating with. You cannot predict where a conversation or an improvisation will go, so you need to remain attentive and flexible; allow yourself to follow the natural flow and logic of the conversation and the music wherever they lead in any given context. This is not to say that you cannot or should not ever draw upon vocabulary you have already used or worked out in the past, it is merely a reminder that everything you play should be executed with artistic and expressive intent. True, meaningful, purposeful, and effective improvisation requires judgment, logic, intuition, honesty, authenticity, taste, and courage.

As you develop as an improviser, remain open-minded and curious, and try to discover and develop your authentic sense of individual creativity through finding and maintaining a delicate balance between your conscious disciplined approach to learning music and your unconscious inspiration and intuition. Keep in mind that art should create a balance between chaos and monotony (this idea is discussed by Rudolf Arnheim in his book *Entropy and Art: An Essay on Disorder* [University of California Press, 1974] who believed that art is our answer to entropy and the Second Law of Thermodynamics, which roughly states that as entropy increases, so do disorganization, randomness, and chaos; so artists subconsciously produce art that balances chaos and order; this idea is in agreement with George Birkhoff's Theory of Aesthetic Value, according to *Fractals, Chaos, Power Laws: Minutes from an Infinite Paradise* by Manfred Schroeder [W.H. Freeman, 1991, p. 109] ; see the recommendations for further reading at the end of this book for more information and detailed references).

Train Your Ear

In order to develop the ability to listen and react immediately and authentically to the music while you are performing, you need to develop your musical ear. While improvising, you want to be able to instinctively identify the musical elements your fellow musicians are playing so that you can appropriately react to them. In other words, you need to have great ears; you

must be able to identify a wide range of musical vocabulary by ear (just like you need to understand a wide number of English words and phrases and recognize them by ear if you want to have an effective and meaningful conversation in English). Make it your goal to strengthen the connection between your understanding of music theory (on paper or in the abstract) and how all of the theoretical musical elements actually sound in real life. Also strive to reinforce the connection between the sounds you hear (both in your mind and in the world around you) and your instrument. Make it your goal to be able to play anything you hear around you or in your mind's ear instantly on your instrument with unerring accuracy. By practicing and singing the elements of rhythm, melody, and harmony discussed in this book, you should have a firm foundation to help you recognize musical content you hear by ear. You should also take ear training a step further and devise and design exercises that will help you develop your ear. Here are a few ear training ideas to get you started:

- In addition to singing scales, chords, melodies, intervals, and other exercises, try **transcribing** music and **learning new music by ear**. Try transcribing music both with and without your instrument. Practice both writing down your transcriptions and learning songs entirely by ear without ever writing them down (this will also help you develop and strengthen your musical memory). Elements to transcribe/learn by ear include: melodies, chord progressions, entire or partial improvised solos, etc. Transcribing is important for developing your ear and for developing musical vocabulary; as jazz trumpeter Clark Terry is often quoted as saying, the process is to “imitate, assimilate, innovate.” As you transcribe, also try to identify compelling aspects of the solos or compositions you are addressing, (e.g. timbre, time-feel, pacing/development, phrasing/articulation, melodic/harmonic devices, etc.) and then invent ways to assimilate these concepts into your own approach to improvisation/composition.
- Find or **make recordings of yourself playing various chords, melodies, melodic fragments, intervals, etc.** using a piano, guitar, or synthesizer. Then edit each piece of musical vocabulary into their own individual audio files and group all the tracks together in one playlist in a digital music player (such as iTunes). Set your playlist to “shuffle” (i.e. randomize the tracks), and **try singing and playing what you hear**. This is a great practical exercise to help you to improve your ear by developing the connection between musical sounds you hear around you and what they sound like on your instrument.
- **Practice visualization** by imagining pitches, chords, melodies etc. in your mind's ear and then playing them. For example, close your eyes and picture a major seventh chord; imagine what it sounds like, what it looks like on paper, and how it feels to play it on your instrument; then sing and/or play what you are visualizing to build a connection between the sounds you hear, see, imagine, and play.
- Another great way to practice internalizing musical vocabulary, ear-training, and singing in general is to **use a drone**. A drone plays one (or two) pitches continuously; a great example of a good drone to work with is a typical *tanpura* drone from Hindustani (Indian classical) music. Type “*tanpura* drones” into any internet search engine and you will find a multitude of free drones to stream online and/or download. Have the drone playing in the background while you sing scales, intervals, arpeggiated chords,

melodies, etc. on top of the drone, paying particular attention to intonation. Start by making the drone your tonic and working on basic musical vocabulary; as you improve, designate the drone as a different pitch for an added challenge (e.g. designate the drone as the major 7th instead of the root and sing scales/melodies/patterns/etc. based around the 7th scale degree).

- **Use a friend/colleague or music education software** to practice exercises that develop your ear. Have a friend or a software program randomly play intervals, chords, chord progressions, melodies etc. for you and then play them back on your instrument, transcribe them, and verbally identify them.

Note for the following melodic and harmonic exercises in the Melodic and Harmonic Supplement Section: I do not write out every transposition and every possible exercise combination in the exercise section below. I did this partly for the sake of time and concision, but more importantly I did it because it is highly useful practice for you to transpose the exercises below into all twelve keys on your own - both in written form and mentally (i.e. without writing them out). Also try to create your own exercises based on the exercises I present below and recombine elements of my exercises to create even more variations of musical concepts to work on.

Melodic and Harmonic Supplement Section

General Notes: For each exercise, practice both with and without a metronome at various tempos, with different articulation patterns, and in all possible registers of your instrument. Supplement these exercises with your own discoveries and ideas. Keep in mind all of the important ideas discussed in the text above while practicing. As you master each piece of musical vocabulary, start to create your own variations based on each musical idea; take this vocabulary and morph it, deconstruct it, rework it, recombine it, reverse it, and develop it into your own unique vocabulary (which could, but does not necessarily have to, fit with the original context you began with).

Section 1: Scales and modes

Chromatic scale -
composed entirely of half-steps



Sample chromatic exercises (reverse direction and invert each exercise also)



Chromatic intervals (continue with compound interval sequences after mastering intervals within one octave)



etc...

The first staff shows a melodic line in treble clef with a key signature of one flat. It consists of four measures of music, each ending with a double bar line and a repeat sign. The notes are: G4, A4, Bb4, C5, D5, E5, F5, G5, A5, Bb5, C6, D6, E6, F6, G6, A6, Bb6, C7, D7, E7, F7, G7, A7, Bb7, C8, D8, E8, F8, G8, A8, Bb8, C9, D9, E9, F9, G9, A9, Bb9, C10, D10, E10, F10, G10, A10, Bb10, C11, D11, E11, F11, G11, A11, Bb11, C12, D12, E12, F12, G12, A12, Bb12, C13, D13, E13, F13, G13, A13, Bb13, C14, D14, E14, F14, G14, A14, Bb14, C15, D15, E15, F15, G15, A15, Bb15, C16, D16, E16, F16, G16, A16, Bb16, C17, D17, E17, F17, G17, A17, Bb17, C18, D18, E18, F18, G18, A18, Bb18, C19, D19, E19, F19, G19, A19, Bb19, C20, D20, E20, F20, G20, A20, Bb20, C21, D21, E21, F21, G21, A21, Bb21, C22, D22, E22, F22, G22, A22, Bb22, C23, D23, E23, F23, G23, A23, Bb23, C24, D24, E24, F24, G24, A24, Bb24, C25, D25, E25, F25, G25, A25, Bb25, C26, D26, E26, F26, G26, A26, Bb26, C27, D27, E27, F27, G27, A27, Bb27, C28, D28, E28, F28, G28, A28, Bb28, C29, D29, E29, F29, G29, A29, Bb29, C30, D30, E30, F30, G30, A30, Bb30, C31, D31, E31, F31, G31, A31, Bb31, C32, D32, E32, F32, G32, A32, Bb32, C33, D33, E33, F33, G33, A33, Bb33, C34, D34, E34, F34, G34, A34, Bb34, C35, D35, E35, F35, G35, A35, Bb35, C36, D36, E36, F36, G36, A36, Bb36, C37, D37, E37, F37, G37, A37, Bb37, C38, D38, E38, F38, G38, A38, Bb38, C39, D39, E39, F39, G39, A39, Bb39, C40, D40, E40, F40, G40, A40, Bb40, C41, D41, E41, F41, G41, A41, Bb41, C42, D42, E42, F42, G42, A42, Bb42, C43, D43, E43, F43, G43, A43, Bb43, C44, D44, E44, F44, G44, A44, Bb44, C45, D45, E45, F45, G45, A45, Bb45, C46, D46, E46, F46, G46, A46, Bb46, C47, D47, E47, F47, G47, A47, Bb47, C48, D48, E48, F48, G48, A48, Bb48, C49, D49, E49, F49, G49, A49, Bb49, C50, D50, E50, F50, G50, A50, Bb50, C51, D51, E51, F51, G51, A51, Bb51, C52, D52, E52, F52, G52, A52, Bb52, C53, D53, E53, F53, G53, A53, Bb53, C54, D54, E54, F54, G54, A54, Bb54, C55, D55, E55, F55, G55, A55, Bb55, C56, D56, E56, F56, G56, A56, Bb56, C57, D57, E57, F57, G57, A57, Bb57, C58, D58, E58, F58, G58, A58, Bb58, C59, D59, E59, F59, G59, A59, Bb59, C60, D60, E60, F60, G60, A60, Bb60, C61, D61, E61, F61, G61, A61, Bb61, C62, D62, E62, F62, G62, A62, Bb62, C63, D63, E63, F63, G63, A63, Bb63, C64, D64, E64, F64, G64, A64, Bb64, C65, D65, E65, F65, G65, A65, Bb65, C66, D66, E66, F66, G66, A66, Bb66, C67, D67, E67, F67, G67, A67, Bb67, C68, D68, E68, F68, G68, A68, Bb68, C69, D69, E69, F69, G69, A69, Bb69, C70, D70, E70, F70, G70, A70, Bb70, C71, D71, E71, F71, G71, A71, Bb71, C72, D72, E72, F72, G72, A72, Bb72, C73, D73, E73, F73, G73, A73, Bb73, C74, D74, E74, F74, G74, A74, Bb74, C75, D75, E75, F75, G75, A75, Bb75, C76, D76, E76, F76, G76, A76, Bb76, C77, D77, E77, F77, G77, A77, Bb77, C78, D78, E78, F78, G78, A78, Bb78, C79, D79, E79, F79, G79, A79, Bb79, C80, D80, E80, F80, G80, A80, Bb80, C81, D81, E81, F81, G81, A81, Bb81, C82, D82, E82, F82, G82, A82, Bb82, C83, D83, E83, F83, G83, A83, Bb83, C84, D84, E84, F84, G84, A84, Bb84, C85, D85, E85, F85, G85, A85, Bb85, C86, D86, E86, F86, G86, A86, Bb86, C87, D87, E87, F87, G87, A87, Bb87, C88, D88, E88, 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C253, D253, E253, F253, G253, A253, Bb253, C254, D254, E254, F254, G254, A254, Bb254, C255, D255, E255, F255, G255, A255, Bb255, C256, D256, E256, F256, G256, A256, Bb256, C257, D257, E257, F257, G257, A257, Bb257, C258, D258, E258, F258, G258, A258, Bb258, C259, D259, E259, F259, G259, A259, Bb259, C260, D260, E260, F260, G260, A260, Bb260, C261, D261, E261, F261, G261, A261, Bb261, C262, D262, E262, F262, G262, A262, Bb262, C263, D263, E263, F263, G263, A263, Bb263, C264, D264, E264, F264, G264, A264, Bb264, C265, D265, E265, F265, G265, A265, Bb265, C266, D266, E266, F266, G266, A266, Bb266, C267, D267, E267, F267, G267, A267, Bb267, C268, D268, E268, F268, G268, A268, Bb268, C269, D269, E269, F269, G269, A269, Bb269, C270, D270, E270, F270, G270, A270, Bb270, C271, D271, E271, F271, G271, A271, Bb271, C272, D272, E272, F272, G272, A272, Bb272, C273, D273, E273, F273, G273, A273, Bb273, C274, D274, E274, F274, G274, A274, Bb274, C275, D275, E275, F275, G275, A275, Bb275, C276, D276, 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G299, A299, Bb299, C300, D300, E300, F300, G300, A300, Bb300, C301, D301, E301, F301, G301, A301, Bb301, C302, D302, E302, F302, G302, A302, Bb302, C303, D303, E303, F303, G303, A303, Bb303, C304, D304, E304, F304, G304, A304, Bb304, C305, D305, E305, F305, G305, A305, Bb305, C306, D306, E306, F306, G306, A306, Bb306, C307, D307, E307, F307, G307, A307, Bb307, C308, D308, E308, F308, G308, A308, Bb308, C309, D309, E309, F309, G309, A309, Bb309, C310, D310, E310, F310, G310, A310, Bb310, C311, D311, E311, F311, G311, A311, Bb311, C312, D312, E312, F312, G312, A312, Bb312, C313, D313, E313, F313, G313, A313, Bb313, C314, D314, E314, F314, G314, A314, Bb314, C315, D315, E315, F315, G315, A315, Bb315, C316, D316, E316, F316, G316, A316, Bb316, C317, D317, E317, F317, G317, A317, Bb317, C318, D318, E318, F318, G318, A318, Bb318, C319, D319, E319, F319, G319, A319, Bb319, C320, D320, E320, F320, G320, A320, Bb320, C321, D321, E321, F321, G321, A321, Bb321, C322, D322, E322, F322, G322, A322, Bb322, C323, D323, E323, F323, G323, A323, Bb323, C324, D324, E324, F324, G324, A324, Bb324, C325, D325, E325, F325, G325, A325, Bb325, C326, D326, E326, F326, G326, A326, Bb326, C327, D327, E327, F327, G327, A327, Bb327, C328, D328, E328, F328, G328, A328, Bb328, C329, D329, E329, F329, G329, A329, Bb329, C330, D330, E330, F330, G330, A330, Bb330, C331, D331, E331, F331, G331, A331, Bb331, C332, D332, E332, F332, G332, A332, Bb332, C333, D333, E333, F333, G333, A333, Bb333, C334, D334, E334, F334, G334, A334, Bb334, C335, D335, E335, F335, G335, A335, Bb335, C336, D336, E336, F336, G336, A336, Bb336, C337, D337, E337, F337, G337, A337, Bb337, C338, D338, E338, F338, G338, A338, Bb338, C339, D339, E339, F339, G339, A339, Bb339, C340, D340, E340, F340, G340, A340, Bb340, C341, D341, E341, F341, G341, A341, Bb341, C342, D342, E342, F342, G342, A342, Bb342, C343, D343, E343, F343, G343, A343, Bb343, C344, D344, E344, F344, G344, A344, Bb344, C345, D345, E345, F345, G345, A345, Bb345, C346, D346, E346, F346, G346, A346, Bb346, C347, D347, E347, F347, G347, A347, Bb347, C348, D348, E348, F348, G348, A348, Bb348, C349, D349, E349, F349, G349, A349, Bb349, C350, D350, E350, F350, G350, A350, Bb350, C351, D351, E351, F351, G351, A351, Bb351, C352, D352, E352, F352, G352, A352, Bb352, C353, D353, E353, F353, G353, A353, Bb353, C354, D354, E354, F354, G354, A354, Bb354, C355, D355, E355, F355, G355, A355, Bb355, C356, D356, E356, F356, G356, A356, Bb356, C357, D357, E357, F357, G357, A357, Bb357, C358, D358, E358, F358, G358, A358, Bb358, C359, D359, E359, F359, G359, A359, Bb359, C360, D360, E360, F360, G360, A360, Bb360, C361, D361, E361, F361, G361, A361, Bb361, C362, D362, E362, F362, G362, A362, Bb362, C363, D363, E363, F363, G363, A363, Bb363, C364, D364, E364, F364, G364, A364, Bb364, C365, D365, E365, F365, G36

etc...

The first staff of music features a sequence of eighth notes in a descending chromatic scale, starting on G4 and ending on G3. The notes are: G4, F#4, F4, E4, D4, C4, B3, A3, G3. The key signature has one flat (Bb).

etc...

The second staff of music features a sequence of eighth notes in a descending chromatic scale, starting on F#4 and ending on F3. The notes are: F#4, F4, E4, D4, C4, B3, A3, G3, F#3, F3. The key signature has one flat (Bb).

etc...

The third staff of music features a sequence of eighth notes in a descending chromatic scale, starting on E4 and ending on E3. The notes are: E4, D4, C4, B3, A3, G3, F#3, F3, E3. The key signature has one flat (Bb).

etc...

The fourth staff of music features a sequence of eighth notes in a descending chromatic scale, starting on D4 and ending on D3. The notes are: D4, C4, B3, A3, G3, F#3, F3, E3, D3. The key signature has one flat (Bb).

etc...

The fifth staff of music features a sequence of eighth notes in a descending chromatic scale, starting on C4 and ending on C3. The notes are: C4, B3, A3, G3, F#3, F3, E3, D3, C3. The key signature has one flat (Bb).

etc...

The sixth staff of music features a sequence of eighth notes in a descending chromatic scale, starting on B3 and ending on B2. The notes are: B3, A3, G3, F#3, F3, E3, D3, C3, B2. The key signature has one flat (Bb).

etc...

The seventh staff of music features a sequence of eighth notes in a descending chromatic scale, starting on A3 and ending on A2. The notes are: A3, G3, F#3, F3, E3, D3, C3, B2, A2. The key signature has one flat (Bb).

etc...

The eighth staff of music features a sequence of eighth notes in a descending chromatic scale, starting on G3 and ending on G2. The notes are: G3, F#3, F3, E3, D3, C3, B2, A2, G2. The key signature has one flat (Bb).

etc...

The ninth staff of music features a sequence of eighth notes in a descending chromatic scale, starting on F#3 and ending on F2. The notes are: F#3, F3, E3, D3, C3, B2, A2, G2, F#2, F2. The key signature has one flat (Bb).

etc...

The tenth staff of music features a sequence of eighth notes in a descending chromatic scale, starting on E3 and ending on E2. The notes are: E3, D3, C3, B2, A2, G2, F#2, F2, E2. The key signature has one flat (Bb).

etc...

The eleventh staff of music features a sequence of eighth notes in a descending chromatic scale, starting on D3 and ending on D2. The notes are: D3, C3, B2, A2, G2, F#2, F2, E2, D2. The key signature has one flat (Bb).

etc...

The twelfth staff of music features a sequence of eighth notes in a descending chromatic scale, starting on C3 and ending on C2. The notes are: C3, B2, A2, G2, F#2, F2, E2, D2, C2. The key signature has one flat (Bb).

etc...

The first staff of music features a treble clef and a key signature of one flat. It contains four measures of music, each with a double bar line at the end. The notes are: G4, A4, Bb4, C5, D5, Eb5, F5, G5, A5, Bb5, C6, D6, Eb6, F6, G6, A6, Bb6, C7, D7, Eb7, F7, G7, A7, Bb7, C8, D8, Eb8, F8, G8, A8, Bb8, C9, D9, Eb9, F9, G9, A9, Bb9, C10, D10, Eb10, F10, G10, A10, Bb10, C11, D11, Eb11, F11, G11, A11, Bb11, C12, D12, Eb12, F12, G12, A12, Bb12, C13, D13, Eb13, F13, G13, A13, Bb13, C14, D14, Eb14, F14, G14, A14, Bb14, C15, D15, Eb15, F15, G15, A15, Bb15, C16, D16, Eb16, F16, G16, A16, Bb16, C17, D17, Eb17, F17, G17, A17, Bb17, C18, D18, Eb18, F18, G18, A18, Bb18, C19, D19, Eb19, F19, G19, A19, Bb19, C20, D20, Eb20, F20, G20, A20, Bb20, C21, D21, Eb21, F21, G21, A21, Bb21, C22, D22, Eb22, F22, G22, A22, Bb22, C23, D23, Eb23, F23, G23, A23, Bb23, C24, D24, Eb24, F24, G24, A24, Bb24, C25, D25, Eb25, F25, G25, A25, Bb25, C26, D26, Eb26, F26, G26, A26, Bb26, C27, D27, Eb27, F27, G27, A27, Bb27, C28, D28, Eb28, F28, G28, A28, Bb28, C29, D29, Eb29, F29, G29, A29, Bb29, C30, D30, Eb30, F30, G30, A30, Bb30, C31, D31, Eb31, F31, G31, A31, Bb31, C32, D32, Eb32, F32, G32, A32, Bb32, C33, D33, Eb33, F33, G33, A33, Bb33, C34, D34, Eb34, F34, G34, A34, Bb34, C35, D35, Eb35, F35, G35, A35, Bb35, C36, D36, Eb36, F36, G36, A36, Bb36, C37, D37, Eb37, F37, G37, A37, Bb37, C38, D38, Eb38, F38, G38, A38, Bb38, C39, D39, Eb39, F39, G39, A39, Bb39, C40, D40, Eb40, F40, G40, A40, Bb40, C41, D41, Eb41, F41, G41, A41, Bb41, C42, D42, Eb42, F42, G42, A42, Bb42, C43, D43, Eb43, F43, G43, A43, Bb43, C44, D44, Eb44, F44, G44, A44, Bb44, C45, D45, Eb45, F45, G45, A45, Bb45, C46, D46, Eb46, F46, G46, A46, Bb46, C47, D47, Eb47, F47, G47, A47, Bb47, C48, D48, Eb48, F48, G48, A48, Bb48, C49, D49, Eb49, F49, G49, A49, Bb49, C50, D50, Eb50, F50, G50, A50, Bb50, C51, D51, Eb51, F51, G51, A51, Bb51, C52, D52, Eb52, F52, G52, A52, Bb52, C53, D53, Eb53, F53, G53, A53, Bb53, C54, D54, Eb54, F54, G54, A54, Bb54, C55, D55, Eb55, F55, G55, A55, Bb55, C56, D56, Eb56, F56, G56, A56, Bb56, C57, D57, Eb57, F57, G57, A57, Bb57, C58, D58, Eb58, F58, G58, A58, Bb58, C59, D59, Eb59, F59, G59, A59, Bb59, C60, D60, Eb60, F60, G60, A60, Bb60, C61, D61, Eb61, F61, G61, A61, Bb61, C62, D62, Eb62, F62, G62, A62, Bb62, C63, D63, Eb63, F63, G63, A63, Bb63, C64, D64, Eb64, F64, G64, A64, Bb64, C65, D65, Eb65, F65, G65, A65, Bb65, C66, D66, Eb66, F66, G66, A66, Bb66, C67, D67, Eb67, F67, G67, A67, Bb67, C68, D68, Eb68, F68, G68, A68, Bb68, C69, D69, Eb69, F69, G69, A69, Bb69, C70, D70, Eb70, F70, G70, A70, Bb70, C71, D71, Eb71, F71, G71, A71, Bb71, C72, D72, Eb72, F72, G72, A72, Bb72, C73, D73, Eb73, F73, G73, A73, Bb73, C74, D74, Eb74, F74, G74, A74, Bb74, C75, D75, Eb75, F75, G75, A75, Bb75, C76, D76, Eb76, F76, G76, A76, Bb76, C77, D77, Eb77, F77, G77, A77, Bb77, C78, D78, Eb78, F78, G78, A78, Bb78, C79, D79, Eb79, F79, G79, A79, Bb79, C80, D80, Eb80, F80, G80, A80, Bb80, C81, D81, Eb81, F81, G81, A81, Bb81, C82, D82, Eb82, F82, G82, A82, Bb82, C83, D83, Eb83, F83, G83, A83, Bb83, C84, D84, Eb84, F84, G84, A84, Bb84, C85, D85, Eb85, F85, G85, A85, Bb85, C86, D86, Eb86, F86, G86, A86, Bb86, C87, D87, Eb87, F87, G87, A87, Bb87, C88, D88, Eb88, F88, G88, A88, Bb88, C89, D89, Eb89, F89, G89, A89, Bb89, C90, D90, Eb90, F90, G90, A90, Bb90, C91, D91, Eb91, F91, G91, A91, Bb91, C92, D92, Eb92, F92, G92, A92, Bb92, C93, D93, Eb93, F93, G93, A93, Bb93, C94, D94, Eb94, F94, G94, A94, Bb94, C95, D95, Eb95, F95, G95, A95, Bb95, C96, D96, Eb96, F96, G96, A96, Bb96, C97, D97, Eb97, F97, G97, A97, Bb97, C98, D98, Eb98, F98, G98, A98, Bb98, C99, D99, Eb99, F99, G99, A99, Bb99, C100, D100, Eb100, F100, G100, A100, Bb100, C101, D101, Eb101, F101, G101, A101, Bb101, C102, D102, Eb102, F102, G102, A102, Bb102, C103, D103, Eb103, F103, G103, A103, Bb103, C104, D104, Eb104, F104, G104, A104, Bb104, C105, D105, Eb105, F105, G105, A105, Bb105, C106, D106, Eb106, F106, G106, A106, Bb106, C107, D107, Eb107, F107, G107, A107, Bb107, C108, D108, Eb108, F108, G108, A108, Bb108, C109, D109, Eb109, F109, G109, A109, Bb109, C110, D110, Eb110, F110, G110, A110, Bb110, 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A133, Bb133, C134, D134, Eb134, F134, G134, A134, Bb134, C135, D135, Eb135, F135, G135, A135, Bb135, C136, D136, Eb136, F136, G136, A136, Bb136, C137, D137, Eb137, F137, G137, A137, Bb137, C138, D138, Eb138, F138, G138, A138, Bb138, C139, D139, Eb139, F139, G139, A139, Bb139, C140, D140, Eb140, F140, G140, A140, Bb140, C141, D141, Eb141, F141, G141, A141, Bb141, C142, D142, Eb142, F142, G142, A142, Bb142, C143, D143, Eb143, F143, G143, A143, Bb143, C144, D144, Eb144, F144, G144, A144, Bb144, C145, D145, Eb145, F145, G145, A145, Bb145, C146, D146, Eb146, F146, G146, A146, Bb146, C147, D147, Eb147, F147, G147, A147, Bb147, C148, D148, Eb148, F148, G148, A148, Bb148, C149, D149, Eb149, F149, G149, A149, Bb149, C150, D150, Eb150, F150, G150, A150, Bb150, C151, D151, Eb151, F151, G151, A151, Bb151, C152, D152, Eb152, F152, G152, A152, Bb152, C153, D153, Eb153, F153, G153, A153, Bb153, C154, D154, Eb154, F154, G154, A154, Bb154, C155, D155, Eb155, F155, G155, A155, Bb155, C156, D156, Eb156, F156, G156, A156, Bb156, C157, D157, Eb157, F157, G157, A157, Bb157, C158, D158, Eb158, F158, G158, A158, Bb158, C159, D159, Eb159, F159, G159, A159, Bb159, C160, D160, Eb160, F160, G160, A160, Bb160, C161, D161, Eb161, F161, G161, A161, Bb161, C162, D162, Eb162, F162, G162, A162, Bb162, C163, D163, Eb163, F163, G163, A163, Bb163, C164, D164, Eb164, F164, G164, A164, Bb164, C165, D165, Eb165, F165, G165, A165, Bb165, C166, D166, Eb166, F166, G166, A166, Bb166, C167, D167, Eb167, F167, G167, A167, Bb167, C168, D168, Eb168, F168, G168, A168, Bb168, C169, D169, Eb169, F169, G169, A169, Bb169, C170, D170, Eb170, F170, G170, A170, Bb170, C171, D171, Eb171, F171, G171, A171, Bb171, C172, D172, Eb172, F172, G172, A172, Bb172, C173, D173, Eb173, F173, G173, A173, Bb173, C174, D174, Eb174, F174, G174, A174, Bb174, C175, D175, Eb175, F175, G175, A175, Bb175, C176, D176, Eb176, F176, G176, A176, Bb176, C177, D177, Eb177, F177, G177, A177, Bb177, C178, D178, Eb178, F178, G178, A178, Bb178, C179, 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G224, A224, Bb224, C225, D225, Eb225, F225, G225, A225, Bb225, C226, D226, Eb226, F226, G226, A226, Bb226, C227, D227, Eb227, F227, G227, A227, Bb227, C228, D228, Eb228, F228, G228, A228, Bb228, C229, D229, Eb229, F229, G229, A229, Bb229, C230, D230, Eb230, F230, G230, A230, Bb230, C231, D231, Eb231, F231, G231, A231, Bb231, C232, D232, Eb232, F232, G232, A232, Bb232, C233, D233, Eb233, F233, G233, A233, Bb233, C234, D234, Eb234, F234, G234, A234, Bb234, C235, D235, Eb235, F235, G235, A235, Bb235, C236, D236, Eb236, F236, G236, A236, Bb236, C237, D237, Eb237, F237, G237, A237, Bb237, C238, D238, Eb238, F238, G238, A238, Bb238, C239, D239, Eb239, F239, G239, A239, Bb239, C240, D240, Eb240, F240, G240, A240, Bb240, C241, D241, Eb241, F241, G241, A241, Bb241, C242, D242, Eb242, F242, G242, A242, Bb242, C243, D243, Eb243, F243, G243, A243, Bb243, C244, D244, Eb244, F244, G244, A244, Bb244, C245, D245, Eb245, F245, G245, A245, Bb245, C246, D246, Eb246, F246, G246, A246, Bb246, C247, D247, 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F315, G315, A315, Bb315, C316, D316, Eb316, F316, G316, A316, Bb316, C317, D317, Eb317, F317, G317, A317, Bb317, C318, D318, Eb318, F318, G318, A318, Bb318, C319, D319, Eb319, F319, G319, A319, Bb319, C320, D320, Eb320, F320, G320, A320, Bb320, C321, D321, Eb321, F321, G321, A321, Bb321, C322, D322, Eb322, F322, G322, A322, Bb322, C323, D323, Eb323, F323, G323, A323, Bb323, C324, D324, Eb324, F324, G324, A324, Bb324, C325, D325, Eb325, F325, G325, A325, Bb325, C326, D326, Eb326, F326, G326, A326, Bb326, C327, D327, Eb327, F327, G327, A327, Bb327, C328, D328, Eb328, F328, G328, A328, Bb328, C329, D329, Eb329, F329, G329, A329, Bb329, C330, D330, Eb330, F330, G330, A330, Bb330, C331, D331, Eb331, F331, G331, A331, Bb331, C332, D332, Eb332, F332, G332, A332, Bb332, C333, D333, Eb333, F333, G333, A333, Bb333, C334, D334, Eb334, F334, G334, A334, Bb334, C335, D335, Eb335, F335, G335, A335, Bb335, C336, D336, Eb336, F336, G336, A336, Bb336, C337, D337, Eb337, F337, G337, A337, Bb337, C338, D338, Eb338, F338, G338, A338, Bb338, C339, D339, Eb339, F339, G339, A339, Bb339, C340, D340, Eb340, F340, G340, A340, Bb340, C341, D341, Eb341, F341, G341, A341, Bb341, C342, D342, Eb342, F342, G342, A342, Bb342, C343, D343, Eb343, F343, G343, A343, Bb343, C344, D344, Eb344, F344, G344, A344, Bb344, C345, D345, Eb345, F345, G345, A345, Bb345, C346, D346, Eb346, F346, G346, A346, Bb346, C347, D347, Eb347, F347, G347, A347, Bb347, C348, D348, Eb348, F348, G348, A348, Bb348, C349, D349, Eb349, F349, G349, A349, Bb349, C350, D350, Eb350, F350, G350, A350, Bb350, C351, D351, Eb351, F351, G351, A351, Bb351, C352, D352, Eb352, F352, G352, A352, Bb352, C353, D353, Eb353, F353, G353, A353, Bb353, C354, D354, Eb354, F354, G354, A354, Bb354, C355, D355, Eb355, F355, G355, A355, Bb355, C356, D356, Eb356, F356, G356, A356, Bb356, C357, D357, Eb357, F357, G357, A357, Bb357, C358, D358, Eb358, F358, G358, A358, Bb358, C359, D359, Eb359, F359, G359, A359, Bb359, C360, D360, Eb360, F360, G360, A360, Bb360, C361, D361, Eb361, F361, G361, A361, Bb361, C362, D362, Eb362, F362, G362, A362, Bb362, C363, D363, Eb363, F363, G363, A363, Bb363, C364, D364, Eb364, F364, G364, A364, Bb364, C365, D365, Eb365, F365, G365, A36

Diatonic scale (also called the major scale, the major mode, or the Ionian mode) - transposed in all 12 keys for convenience and as an example of how to transpose all scales in subsequent sections

Modes derived from the major mode (transpose and practice them in all 12 keys)

Dorian [D-7: lowered 3rd and 7th degrees relative to major mode] - played from second degree of major mode

Phrygian [E-7(b2, b6): lowered 2nd, 3rd, 6th, and 7th degrees relative to major mode] - played from third degree of major mode

Lydian [Fmaj7(#11): raised 4th degree relative to major mode] - played from fourth degree of major mode

Mixolydian [G dominant seventh or G7: lowered 7th degree relative to major mode] - played from fifth degree of major mode

Aeolian, also called natural minor or pure minor [A-7(b6): lowered 3rd, 6th, and 7th degrees relative to major mode] - played from sixth degree of major mode

Locrian [B-7(b2, b5, b6): lowered 2nd, 3rd, 5th, 6th, and 7th degrees relative to major mode] - played from seventh degree of major mode

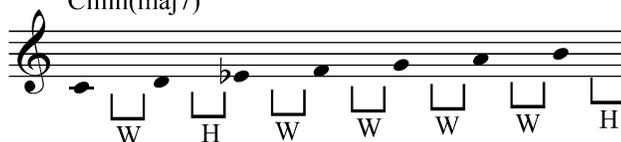
Sample scale exercises (to practice in all modes in all 12 keys at various tempos with various articulations and in reverse directions)

*W = the interval of a whole step
**H = the interval of a half step

Other common modes (transpose and practice them in all 12 keys)

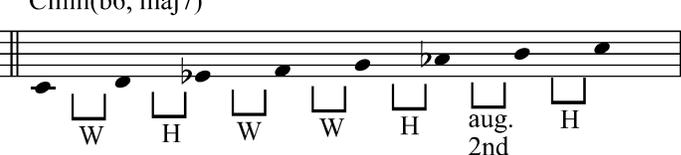
Melodic minor scale

Cmin(maj7)



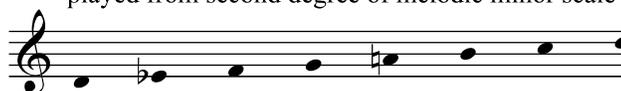
Harmonic minor scale

Cmin(b6, maj7)



Modes derived from the melodic minor scale (transpose and practice them in all 12 keys)

Dorian b2 [D-7(b2): lowered 2nd, 3rd, and 7th degrees relative to major mode] - played from second degree of melodic minor scale



Lydian augmented [Ebmaj7(#11, #5): raised 4th and 5th degrees relative to major mode] - played from third degree of melodic minor scale



Lydian dominant [Fmaj7(#11): raised 4th and lowered 7th degrees relative to major mode] - played from fourth degree of melodic minor scale



Mixolydian b6 [G7 (b6): lowered 6th and 7th degrees relative to major mode] - played from fifth degree of melodic minor scale



Minor seven b5, [A-7(b5): lowered 3rd, 5th, and 7th degrees relative to major mode] - played from sixth degree of melodic minor scale



Altered dominant [B7(alt.): lowered 2nd, 3rd, 4th, 5th, 6th, and 7th degrees relative to major mode] - played from seventh degree of melodic minor scale*



Modes derived from the harmonic minor scale (transpose and practice them in all 12 keys)

Locrian b2 [D-7(b2, b5): lowered 2nd, 3rd, 5th, and 7th degrees relative to major mode] - played from second degree of harmonic minor scale



Ionian/major augmented [Ebmaj7(#5): raised 5th degree relative to major mode] - played from third degree of harmonic minor scale



Dorian #4** [Fmin7(#11): raised 4th and lowered 3rd and 7th degrees relative to major mode] - played from fourth degree of harmonic minor scale



Phrygian dominant [G7 (b2, b6): lowered 2nd, 6th, and 7th degrees relative to major mode] - played from fifth degree of harmonic minor scale



Lydian #2** [Abmaj7(#2, #11): raised 2nd and 4th degrees relative to major mode] - played from sixth degree of harmonic minor scale



Ultralocrian [B(ultraloc.): lowered 2nd, 3rd, 4th, 5th, 6th, and double-lowered 7th degrees relative to major mode] - played from seventh degree of harmonic minor scale



*The altered dominant scale is also known as the diminished whole-tone scale because the first half of the scale follows the same intervallic pattern as the diminished scale and the second half of the scale follows the same pattern as the whole-tone scale

**The "#" symbol refers to "sharp" not "number" in this context (i.e. dorian "sharp four" as opposed to dorian "number four")

Diminished, whole tone, and hexatonic scales (modes of limited transposition)

Diminished scales (also called the octatonic scale or collection)

composed of two fully diminished seventh chords a half-step apart

#1

#2

#3

Sample diminished scale exercises (transpose them to all 3 diminished scales)

etc...

etc...

etc...

etc...

etc...

*Starting the diminished scale intervallic pattern (W^HW^H, repeated symmetrically) with a half-step instead of a whole-step creates a mode derived from the octatonic collection called the flat-nine (b9) scale which is related to the altered dominant scale and can be used over dominant-seventh chords (especially altered dominant 7th chords) in a jazz context

etc...

etc...

etc...

etc...

Whole-tone scales
composed of whole-steps only

and

Sample whole tone scale exercises (transpose them to both scales)

etc...

etc...

etc...

etc...

etc...

etc...

Hexatonic scales

Augmented scale

Diagram illustrating the structure of an augmented scale, showing intervals: aug. 2nd, H, aug. 2nd, H, aug. 2nd, H.

The diagram shows four staves of musical notation for augmented scales in different keys: C major, D major, E major, and F major. Each staff contains two measures of the scale. The first measure is the ascending scale, and the second is the descending scale. The intervals between notes are labeled as augmented 2nds and major 2nds (H).

Augmented scale sample exercises (transpose them for all keys)

Diagram illustrating sample exercises for augmented scales, showing various rhythmic patterns and transpositions. Exercises are labeled "etc..." indicating they should be transposed for all keys.

The exercises consist of six staves of musical notation. Each staff shows a different rhythmic pattern for an augmented scale. The first staff is in 4/4 time, while the others are in 2/4 time. Each exercise is followed by "etc..." to indicate it should be transposed for all keys.

Examples of other hexatonic scales

A. Scriabin's "Prometheus" scale I. Stravinsky's "Petrouchka" hexatonic Symmetrical hexatonic

W W W min. 3rd H W H aug. 2nd min. 3rd W H H maj. 3rd H H maj. 3rd

Blues scale Asymmetrical hexatonic ex. 1 Asymmetrical hexatonic ex. 2

min. 3rd W H H min. 3rd W H H min. 3rd H min. 3rd W H H min. 3rd maj. 3rd H

Asymmetrical hexatonic ex. 3 Asymmetrical hexatonic ex. 4 Asymmetrical hexatonic ex. 5

W H H W per. 4th H W H W aug. 2nd min. 3rd H W H H H tri-tone H

Pentatonic scales (transpose and practice all scales and exercises in all 12 keys)

Major pentatonic Minor pentatonic A Japanese pentatonic example

W W min. 3rd W min. 3rd min. 3rd W W min. 3rd W H maj. 3rd W H maj. 3rd

Example pentatonic scale patterns

etc... etc... etc...

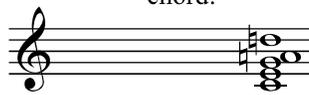
Pentatonic workout: practice using pentatonics to seamlessly modulate through different tonalities

Example:

etc...

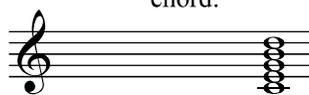
Applying pentatonics over jazz chords examples

Cmaj(6, 9) chord using A minor pentatonic (equivalent to C major pent.)

chord:  scale to use over chord: 

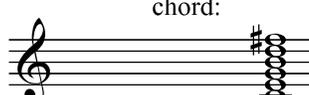
scale degrees emphasized: 6 1 2 3 5

Cmaj7(add 9) chord using E minor pentatonic

chord:  scale to use over chord: 

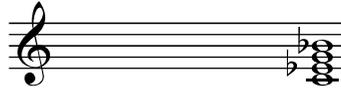
scale degrees emphasized: 3 5 6 7 2

Cmaj9(#11) chord using B minor pentatonic

chord:  scale to use over chord: 

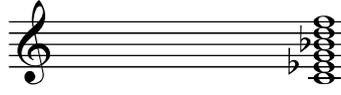
scale degrees emphasized: 7 2 3 #4 6

Cmin7 chord using C minor pentatonic (equivalent to Eb major pent.)

chord:  scale to use over chord: 

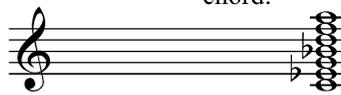
scale degrees emphasized: 1 (b)3 4 5 (b)7

Cmin11 chord using G minor pentatonic

chord:  scale to use over chord: 

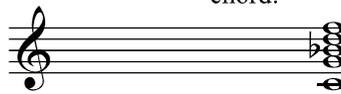
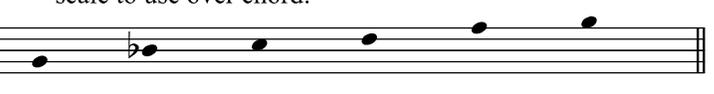
scale degrees emphasized: 5 (b)7 1 2 4

Cmin13 chord using D minor pentatonic

chord:  scale to use over chord: 

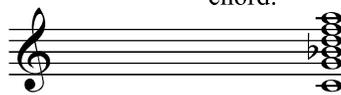
scale degrees emphasized: 2 4 5 6 1

C7(sus4) chord using G minor pentatonic

chord:  scale to use over chord: 

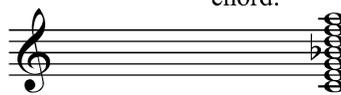
scale degrees emphasized: 5 (b)7 1 2 4

C13(sus4) chord using D minor pentatonic

chord:  scale to use over chord: 

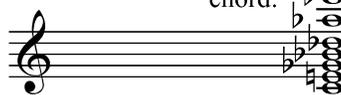
scale degrees emphasized: 2 4 5 6 1

C7(add 9, 13) chord using A minor pentatonic

chord:  scale to use over chord: 

scale degrees emphasized: 6 1 2 3 5

C7(alt.) chord using Eb minor pentatonic

chord:  scale to use over chord: 

scale degrees emphasized: #9 #11 b13 (b)7 b9

Section 2: Syllabus of intervals (transpose them to all 12 pitches of the chromatic scale)

Note: adding octaves to intervals (thus creating compound intervals) or moving intervals into different pitch registers does not fundamentally change the way the intervals function - this principle is called octave equivalence

unison = octave 1/2 step or minor 2nd = minor 9th whole step or major 2nd = major 9th

0 half steps (same note) 6 whole steps = 12 half steps (inverts to a major 7th) 1/2 step + 1 octave 2 half steps (inverts to a minor 7th) 2 half steps + 1 octave

minor 3rd = augmented 2nd major 3rd = diminished 4th perfect 4th = augmented 3rd

3 half steps (inverts to a major 6th) 2 whole steps = 4 half steps (inverts to a minor 6th) 5 half steps (inverts to a perfect 5th)

augmented 4th = diminished 5th perfect 5th augmented 5th = minor 6th

also called a tritone
3 whole steps = 6 half steps (inverts to itself, i.e. the same tritone) 7 half steps (inverts to a perfect 4th) 4 whole steps = 8 half steps (inverts to a major 3rd)

major 6th augmented 6th = minor 7th major 7th

9 half steps (inverts to a minor 3rd) 5 whole steps = 10 half steps (inverts to a major 2nd) 11 half steps (inverts to a minor 2nd)

Section 3: Syllabus of triads (transpose them to all 12 pitches of the chromatic scale)

Note: adding octaves to triads, doubling pitches, and playing them in different registers and/or inversions does not fundamentally change a given triad's identity or function

Cmaj. 5 (or 5th) Cmin. 5 Cdim. 5

3 (or 3rd) 3 3

1 (or tonic or root) 1 1

major triad: 1 to 3 = maj. 3rd
3 to 5 = min. 3rd
1 to 5 = perf. 5th

minor triad: 1 to 3 = min. 3rd
3 to 5 = maj. 3rd
1 to 5 = perf. 5th

diminished triad: 1 to 3 = min. 3rd
3 to 5 = min. 3rd
1 to 5 = dim. 5th

Caug. or C+ 5 Csus or C(sus4) 5

3 4 (or 4th) 1

1 1

augmented triad (symmetrical): 1 to 3 = maj. 3rd
3 to 5 = maj. 3rd
1 to 5 = aug. 5th

suspended 4th "triad": 1 to 4 = perf. 4th
4 to 5 = maj. 2nd
1 to 5 = perf. 5th

Triad positions/inversions (examples use major triads - inversions apply to all types of triads)

Root position 1st inversion 2nd inversion

5th root 3rd
 3rd 5th root
 root 3rd 5th

Other examples of triad positions/inversions (with doublings) in the key of C major

C major in root position
(I in classical notation)

etc...

C major in first inversion
(I³ in classical notation)

etc...

C major in second inversion
(I⁶ in classical notation)

etc...

Sample applications of triad pairs over jazz chords

Cmaj7(#11) chord using C and D maj. triads

C + D scale degrees emphasized:
 1 3 5 2 #11 6

Cmaj7(#11) chord using B and E min. triads

B- + E- scale degrees emphasized:
 7 2 #11 3 5

Cmaj7(#11) chord using D and G maj. triads

D + G scale degrees emphasized:
 2 #11 6 5 7

C7(sus4) chord using C and Bb maj. triads

C + Bb scale degrees emphasized:
 1 3 5 (b)7 2 4

C7(sus4) chord using C and F maj. triads

C + F scale degrees emphasized:
1 3 5 4 6

C7(sus4) chord using F and Bb maj. triads

F + Bb scale degrees emphasized:
4 6 1 (b)7 2

C7(alt.) chord using Gb and Ab maj. triads

Gb + Ab scale degrees emphasized:
#11 (b)7 9 b13 1 #9

C-7 chord using Eb and Bb maj. triads

Eb + Bb scale degrees emphasized:
(b)3 5 (b)7 2 4

C-13 chord using F and Bb maj. triads

F + Bb scale degrees emphasized:
4 6 1 (b)7 2

C-13 chord using F and Eb maj. triads

F + Eb scale degrees emphasized:
4 6 1 (b)3 5 (b)7

C-13 chord using D and G min. triads

D- + G- scale degrees emphasized:
2 4 6 5 (b)7

C-13(maj7) chord using A dim. and G maj. triads

Adim. + Gmaj. scale degrees emphasized:
6 1 (b)3 5 7 2

Whole-tone scale using two augmented triads

C7+ + Caug. all scale degrees emphasized

Syllabus of seventh chords (transpose them to all 12 pitches of the chromatic scale)

Note: adding octaves to 7th chords, doubling pitches, and playing them in different registers and/or inversions does not fundamentally change a given chord's identity or function

Cmaj.7 7 (or 7th) 5 (or 5th) Cmaj.7(#5) or C+(maj.7) Cmaj.7(b5)

major 7th chord:
 major triad +
 5 to 7 = maj. 3rd
 1 to 7 = maj. 7th

augmented
 major 7th chord:
 aug. triad +
 5 to 7 = min. 3rd
 1 to 7 = maj. 7th

major 7 (b5) chord:
 maj. 7th chord
 with lowered 5th
 5 to 7 = aug. 3rd
 1 to 7 = maj. 7th

C7 C7(b5) C7(#5) or C+7

dominant 7th chord:
 maj. triad +
 5 to 7 = min. 3rd
 1 to 7 = min. 7th

dom. 7 (b5) chord:
 dom. 7th chord
 with lowered 5th
 5 to 7 = maj. 3rd
 1 to 7 = min. 7th

dom. 7 (#5) chord:
 dom. 7th chord
 with raised 5th
 5 to 7 = double
 lowered 3rd
 1 to 7 = min. 7th

C-7 or Cmin.7 C-7(b5) or Cø7 C-(maj.7)

minor 7th chord:
 min. triad +
 5 to 7 = min. 3rd
 1 to 7 = min. 7th

min. 7 (b5) or half-
 diminished chord:
 min. 7th chord
 with lowered 5th
 5 to 7 = maj. 3rd
 1 to 7 = min. 7th

minor-major 7th chord:
 min. triad +
 5 to 7 = maj. 3rd
 1 to 7 = maj. 7th

C-7(#5) C-(maj.7, #5) Cdim.7 or C°7

min. 7 (#5) chord:
 min. 7th chord
 with raised 5th
 5 to 7 = double
 lowered 3rd
 1 to 7 = min. 7th

minor-major 7 (#5) chord:
 min.-maj. 7th chord
 with raised 5th+
 5 to 7 = min. 3rd
 1 to 7 = maj. 7th

fully diminished 7th chord:
 dim. triad +
 5 to 7 = min. 3rd
 1 to 7 = double lowered 7th

Cdim.(maj.7) or C°(maj7) C7sus or C7(sus4) or Csus7 Cmaj.7sus or Cmaj7(sus4)

diminished maj. 7 chord:
 dim. triad +
 5 to 7 = aug. 3rd
 1 to 7 = maj. 7th

suspended 4th 7th chord:
 sus. 4th triad +
 5 to 7 = min. 3rd
 1 to 7 = min. 7th

sus. 4th maj. 7th chord:
 sus. 4th triad +
 5 to 7 = min. 3rd
 1 to 7 = min. 7th

Seventh chords positions/inversions (examples use major 7th chords - inversions apply to all types of 7th chords)

Other examples of 7th chords positions/inversions (with doublings) in the key of C major

Cmaj.7 in root position
(I⁷ in classical notation)

Cmaj.7 in first inversion
(I⁶ in classical notation)

Cmaj.7 in second inversion
(I⁴ in classical notation)

Cmaj.7 in third inversion
(I² in classical notation)

Conceptualizing extensions/extended chords: chords with additional notes beyond triads/7th chords

Select 7th chords and then add the extensions (9, 11, and 13 chord degrees) to create extended chords; alter* the extensions to generate a wider variety of chords - note that the numbers refer to the interval of the chord degree relative to the root

*Common alterations are to lower the 5 (b5), 9 (b9), and/or 13 (b13), and/or to raise the 5 (#5), 9 (#9), and/or 11 (#11)

Section 4: Samples of common jazz piano voicings for standard chords (transpose them to all 12 keys; practice them on piano and by singing and arpeggiating them on your instrument)

Example harmonic sub-structures to practice and combine while generating jazz voicings and melodic/harmonic vocabulary:

Triads and inversions 7th chords and inversions Add 4 triads and inversions Stacked 3rds

Musical notation showing four groups of chords on a single staff. The first group shows triads and their inversions. The second group shows 7th chords and their inversions. The third group shows triads with an added 4th. The fourth group shows stacked 3rds.

Stacked 4ths and 5ths Tone clusters Open voicings/wide intervals Dyads and implied/open/ambiguous harmonies

Musical notation showing four groups of chords on a single staff. The first group shows stacked 4ths and 5ths. The second group shows tone clusters. The third group shows open voicings with wide intervals. The fourth group shows dyads and implied or ambiguous harmonies.

Examples of fully voiced common jazz harmonies with extensions (transpose and practice these in all 12 keys):

:

Musical notation for fully voiced Cmaj9, C6, and Cmaj9 chords. The first two are Cmaj9 in different voicings, followed by C6, and then two more Cmaj9 voicings.

Musical notation for fully voiced Cmaj9 and Cmaj7(#11) chords. It shows six Cmaj9 voicings followed by one Cmaj7(#11) voicing.

Musical notation for fully voiced Cmaj7(#11) chords in five different voicings.

Musical notation for fully voiced C7 and C13 chords. It shows two C7 voicings followed by six C13 voicings.

C7(sus4) C7(sus4) C7(sus4) C7(sus4) C7(sus4) C7(sus4) C7(sus4)

etc...

C7(#11) C7(#11) C7(#11) C7(#11) C7(b9) C7(b9) C7(b9) C7(b9)

etc...

C7(#11) C7(#11) C7(#11) C7(b13) C7(b13) C7(b13) C7(b13)

C7(b13) C7(b13) C7(#11) C7(b13) C13(#9) C13(b9) C7(b13)

Cm9 Cm9 Cm9 Cm13 Cm9 Cm13 Cm9 Cm9 Cm9 Cm9 Cm9 Cm9

657 Cm9 Cm7 Cm9 Cm9 Cm9 Cm11 Cm9 Cm9 Cm9 Cm9 Cm9

etc...

Cm(maj9) Cm(maj9) Cm(maj9) Cm(maj9) Cm(maj9) Cm(maj9) Cm(maj9) Cm(maj9) Cm(maj9) Cm(maj9)

etc...

Cmaj9(#5) Cmaj9(#5) Cmaj9(#5) Cmaj9(#5) Cmaj9(#5) Cmaj9(#5) Cmaj9(#5) Cmaj9(#5) Cmaj9(#5)

etc...

Cm7(b5) Cm7(b5) Cm7(b5) Cm7(b5) Cm7(b5) Cm7(b5) Cm7(b5) Cm7(b5)

etc...

C°7 C°7

etc...

Cm7(b6) Cm7(b6)

etc...

Cm7(b9) Cm7(b9)

etc...

**Examples of fully voiced common jazz harmonies over common chord progressions
(transpose and practice these in all 12 keys):**

ii-V7-I progressions

Dm⁹ G⁹ Cmaj⁹ Dm⁹ G⁹ Cmaj⁹ Dm⁹ G⁹ Cmaj⁹ Dm⁹ G⁹ Cmaj⁹

Dm⁹ G⁹ Cmaj⁹ Dm⁹ G⁹ Cmaj⁹ Dm⁹ G⁹ Cmaj⁹ Dm⁹ G⁹ Cmaj⁹ Dm⁹ G⁹ Cmaj⁹

Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹

Dm⁹ G7(#11) Cmaj¹³ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(#11) Cmaj⁹ Dm⁹ G7(#11) Cmaj⁹ Dm⁹ G7(#11) Cmaj⁹

Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹

Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹ Dm⁹ G7(b13) Cmaj⁹

Dm⁹ G7(#11) Cmaj⁹ Dm⁹ G7(#11) Cmaj⁹ Dm⁹ G7alt. Cmaj⁹ Dm⁹ G7(#11) Cmaj⁹ Dm⁹ G7(#11) Cmaj⁹

etc...

Minor key ii(ø7)-V7(alt)-i progressions

Dm7(b5) G7(b9) Cm9 Dm7(b5) G7(b9) Cm9 Dm7(b5) G7(b9) Cm9 Dm7(b5) G7(b9) Cm9
 Dm7(b5) G7(b9) Cm9 Dm7(b5) G7(b9) Cm9 Dm7(b5) G7(b9) Cm9 Dm7(b5) G7(b9) Cm9

etc...

I-vi and I-VI7 progressions (also place these at the beginning of the preceding ii-V7-I progressions in various combinations to create I-vi-ii-V7-I's; also try using altered dominant voicings for VI7 chords) - transpose and practice in all 12 keys

Cmaj9 Am9 Cmaj9 Am9 Cmaj9 Am9 Cmaj9 Am9 Cmaj9 Am9 Cmaj9 Am9 Cmaj9 Am9

Cmaj9 A7 Cmaj9 A7 Cmaj9 A7 Cmaj9 A7 Cmaj9 A7 Cmaj9 A7 Cmaj9 A7

etc...

etc...

Cycle of 4ths examples (shown using major, dominant 7th, and dominant chords - can be practiced with any and all chord types in various combinations and inversions) - complete the cycles and practice in all 12 keys

Cmaj9 Fmaj9 Bbmaj9 Ebmaj9 Abmaj9 Dbmaj9

C7 F7 Bb7 Eb7 Ab7 Db7

C7alt F7alt Bb7alt Eb7alt Ab7alt Db7alt

etc...

etc...

etc...

Additional common chord progression (mix and match voicings or melodic/harmonic patterns already presented here, or start to generate and apply your own) - transpose each example and practice them in all 12 keys; also vary the chord quality (chord type) and/or meter/tempo for each exercise to generate additional practice material

Chordal/tonal movement by half step

Cmaj7 Bmaj7 Bbmaj7 Amaj7 Em7 (A7) Ebm7 (Ab7) Dm7 (G7) Cm7 (F7) Dbm7 (Gb7) Dm7 (G7) etc...

Chordal movement by whole step

Cmaj7 Dm7 Em7 Dm7 Cmaj7 Bbmaj7 Abmaj7 etc...

Chordal/tonal movement by thirds

Cmaj7 Amaj7 Fmaj7 Dm7 Bbmaj7 Gbmaj7 Amaj7 Fmaj7 Dmaj7 etc...

Chordal movement by parallel majors/minors

Cmaj7 Cm7 Bmaj7 Bm7 Am7 Amaj7 etc...

"Giant Steps" cycle

Cmaj7 Eb7 Abmaj7 B7 Emaj7 Bbm7 Eb7 Abmaj7 B7 Emaj7 G7 Cmaj7 etc...

"Autumn Leaves" cycle

Cm7 F7 Bbmaj7 Ebmaj7 Aø7 D7alt. Gm etc...

"Lady Bird" cycle/turnaround

Cmaj7 Eb7 Abmaj7 Db7 Cmaj7 Eb7 Abmaj7 Db7 etc... or (more commonly)

"Blues" (jazz style/version) form (with some common variations and superimpositions in parentheses and brackets above the original/common/basic chords)

{Db7 Ab7 D7 Db7} [Ab-7 Db7 C-7 F7 Db7] (Ab7 Db7 Gb7 B7 E7 A7 D7 G7) G7 C7 G7 Dm7 G7

[C-7 F7 B-7 E7 Bb7 Eb7] (C-7 F7 C7 B-7 E7 Bb7 Eb7) C7 C#ø7 G7 E7

[G7 Bb7 Am7 Ab7] (Ab7) (G7 Bb7 Eb7 Ab7) Am7 D7 G7 E7 Am7 D7

"Rhythm Changes" form (with some common variations and superimpositions in parentheses and brackets above the original/common/basic chords)

{C#dim7 D#dim7}

[Eb7 D7 Db7 E7 Eb7 D7 Db7 C7 F#7 Eb7 Ab7 Db7)

(A7 E7 A7 F-7 A7)

Cmaj7 Am7 Dm7 G7 Em7 Am7 Dm7 G7 Cmaj7 C7 F7 F#o7 Cmaj7 Am7 Dm7 G7

[Db7 Gb7 B7 Bb7 A7 Ab7 G7 F#7 C7 F#7]

(Db7 Gb7 B7 E7 A7 D7 G7 C7 G-7 F#7)

Cmaj7 Am7 Dm7 G7 Em7 Am7 Dm7 G7 Cmaj7 C7 F7 F#o7 Cmaj7 G7 Cmaj7

<F(dim.7) Bb(dim.7) Eb(dim.7) Ab(dim.7)>

{E7(alt.) Eb7 D7(alt.) Db7}

[B-7 E7 Bb-7 Eb7 A-7 D7 Ab-7 Db7]

(B-7 E7 E-7 A7 A-7 D7 D-7 G7)

E7 A7 D7 G7

[Eb7 Abmaj7 B7 E7 A7 D7 G7 G-7 C7]

(Eb7 Abmaj7 B7 Emaj7 G7 Cmaj7 Eb7 Abmaj7 B7)

Cmaj7 Am7 Dm7 G7 Em7 Am7 Dm7 G7 Cmaj7 C7 F7 F#o7 Cmaj7 Am7 Dm7 G7

Examples of how to practice using guide-tones* over common jazz chord progressions and standards

Dm7 G7 Cmaj9

D7 G7 C7 F7 D7 G7 C7 F7

Dm7(b5) G7(b13) Cmaj9(#11)

b5 1 #11

Dm7 G7(b13) Cmaj9

9 b13 9

Dm7 G7(b13) Cmaj9

5 b9 5

*Guide-tones are notes that outline, define, and follow the harmonic movement from one chord to the next in harmonic progressions, thus creating the harmonic movement known as voice-leading - the most common guide tones are the 3rds and 7ths of chords, but other guide-tone patterns are possible, with some additional examples shown here

Guide-tones applied to the harmony of "All The Things You Are"

Creating melodic lines using target notes, guide-tones, and surrounding tones or approach tones

Take this pitch as an example target tone*

Diatonic approach from below Diatonic approach from above Chromatic approach from below Chromatic approach from above

Longer diatonic approaches from below Longer diatonic approaches from above

Longer chromatic approaches from below Longer chromatic approaches from above

*Any pitch can be selected as a target tone, but chord tones (and particularly guide-tones) are especially effective target tones when improvising in a jazz context

Diatonic surrounding tones

Chromatic surrounding tones

Musical notation showing diatonic and chromatic surrounding tones. The first staff shows a sequence of notes: C4-D4-E4-F4-G4-A4-B4-C5 (diatonic), followed by C4-D4-E4-F4-G4-A4-B4-C5 (chromatic). The second staff shows a sequence of notes: C4-D4-E4-F4-G4-A4-B4-C5 (diatonic), followed by C4-D4-E4-F4-G4-A4-B4-C5 (chromatic). The third staff shows a sequence of notes: C4-D4-E4-F4-G4-A4-B4-C5 (diatonic), followed by C4-D4-E4-F4-G4-A4-B4-C5 (chromatic). The fourth staff shows a sequence of notes: C4-D4-E4-F4-G4-A4-B4-C5 (diatonic), followed by C4-D4-E4-F4-G4-A4-B4-C5 (chromatic). etc...

Longer diatonic surrounding tones

Musical notation showing longer diatonic surrounding tones. The first staff shows a sequence of notes: C4-D4-E4-F4-G4-A4-B4-C5 (diatonic), followed by C4-D4-E4-F4-G4-A4-B4-C5 (diatonic). The second staff shows a sequence of notes: C4-D4-E4-F4-G4-A4-B4-C5 (diatonic), followed by C4-D4-E4-F4-G4-A4-B4-C5 (diatonic). etc...

Longer chromatic surrounding tones

Musical notation showing longer chromatic surrounding tones. The first staff shows a sequence of notes: C4-D4-E4-F4-G4-A4-B4-C5 (chromatic), followed by C4-D4-E4-F4-G4-A4-B4-C5 (chromatic). The second staff shows a sequence of notes: C4-D4-E4-F4-G4-A4-B4-C5 (chromatic), followed by C4-D4-E4-F4-G4-A4-B4-C5 (chromatic). The third staff shows a sequence of notes: C4-D4-E4-F4-G4-A4-B4-C5 (chromatic), followed by C4-D4-E4-F4-G4-A4-B4-C5 (chromatic). The fourth staff shows a sequence of notes: C4-D4-E4-F4-G4-A4-B4-C5 (chromatic), followed by C4-D4-E4-F4-G4-A4-B4-C5 (chromatic). etc...

Section 5: Melodic/harmonic shapes and cells (transpose them to all 12 keys; practice them on piano and by singing and arpeggiating them on your instrument; use them to create motivic and melodic vocabulary over standards or when improvising freely)

General concepts:

Triads and inversions

7th chords and inversions

Add 4 triads and inversions

Stacked 3rds

Musical notation showing general concepts: triads and inversions, 7th chords and inversions, add 4 triads and inversions, and stacked 3rds. The first staff shows triads and inversions. The second staff shows 7th chords and inversions. The third staff shows add 4 triads and inversions. The fourth staff shows stacked 3rds. etc...

Stacked 4ths and 5ths

Tone clusters

Open voicings/wide intervals

Dyads and implied/open/ambiguous harmonies

Musical notation showing general concepts: stacked 4ths and 5ths, tone clusters, open voicings/wide intervals, and dyads and implied/open/ambiguous harmonies. The first staff shows stacked 4ths and 5ths. The second staff shows tone clusters. The third staff shows open voicings/wide intervals. The fourth staff shows dyads and implied/open/ambiguous harmonies. etc...

More specific examples:

Trichord examples

Musical notation showing trichord examples. The first staff shows trichord examples. etc...

Tetrachord examples

Musical notation showing tetrachord examples. The first staff shows tetrachord examples. etc...

Pentachord examples

Musical notation showing pentachord examples. The first staff shows pentachord examples. etc...

Examples/samples of compositions/improvisations based on a melodic motive (i.e. a constant harmonic structure or harmonic/melodic shape/cell)*

Example 1 is based exclusively on transpositions/inversions of this harmonic/melodic shape/cell/motive:



Example 1 (I omit articulations, dynamics, and other expressive marks for the sake of clarity and simplicity):



Example 2 is based exclusively on transpositions/inversions of this harmonic/melodic shape/cell/motive:



Example 2 (I omit articulations, dynamics, and other expressive marks for the sake of clarity and simplicity):



*For more examples of this compositional/improvisational technique in action, please see my book of saxophone etudes, *20 Modernist Etudes for Solo Saxophone* (Saxophone Today, 2015, saxophonetoday.com)

Example 3: using the 1-2-3-5 shape

First practice the 1-2-3-5 pattern and various permutations - practice all variations in all modes in all 12 keys

C: 1 2 3 5 5 3 2 1 1 3 2 5 etc...

Also try 1-3-4-5, especially for minor chords/scales - sample permutations

Example of 1-2-3-5 and 1-3-4-5 permutations applied to the "Giant Steps" harmonic cycle

Amaj7 C7 Fmaj7 G#7 C#maj7 Gm7 C7

Fmaj7 G#7 C#maj7 E7 Amaj7

etc...

In addition to the examples above, there are numerous other ways you can create a sense of melodic/harmonic development and unity: another way to tie together an improvisation or composition by maintaining constant structures is to use some sort of clear system or organizing principle such as the 12-tone system (see the next section below). Here are a few more examples of different constant structures you can use to create a sense of unity and continuity in your music:

Example 4: triad-based "system" (i.e. using only triadic shapes) applied to the harmonic progression of "Stella by Starlight," note the attempt at conveying a clear sense of voice leading while using only triads

[D7(sus4)]

Example 5: miscellaneous shapes applied to the harmonic progression of "Solar," note the attempt at conveying a clear sense of voice leading

Am(maj7) Em7 A7alt.

Dmaj7 Dm7 G7alt.

Cmaj7(#11) [F7(alt.)] Cm7 F7 Bbmaj7 E7alt.

Am(maj7) Em7 A7alt.

Dmaj7 Dm7 G7alt.

Cmaj7(#11) [F7(alt.)] Cm7 F7 Bbmaj7 E7alt.

Examples of polytonal harmonies* (compressed, simplified, and transposed to treble clef for clarity and simplicity) to use to develop melodic/harmony vocabulary (also create your own using these models as the inspiration)

Igor Stravinsky's "Petrouchka Chord"

Stravinsky's "Rite of Spring Chord"

Richard Strauss's "Elektra Chord"

C major + F# major =

E major + Eb7 =

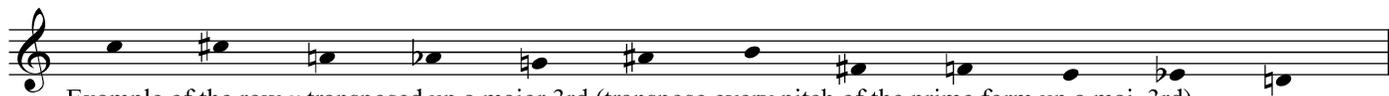
E maj. + Db maj. =

*Polytonal/polytonality simply refers to harmonies that use and/or strongly imply multiple (hence the prefix "poly-") tonalities or key centers simultaneously (e.g. stacking a clear Eb dominant harmony on top of a clear E major harmony, as seen above)

Section 6: Brief introduction to Arnold Schoenberg's 12-tone system and vocabulary

The basic concept of the 12-tone or serialist system is to base an entire (or a significant part of a) composition on one set of all 12 chromatic pitches organized in a certain order (called a 12-tone row or series); all 12 notes of the chromatic scale should be heard before they are repeated in any way that gives them significance - thus all 12 pitches of the chromatic scale are given equal emphasis and the composition has a sense of unity. Tone rows can be played forward, backward (called retrograde), transposed to any other pitch level, and inverted, and/or using any combination of transposition, retrograde, and/or inversion.

Example of a 12-tone row, *x* in "prime" form



Example of the row *x* transposed up a major 3rd (transpose every pitch of the prime form up a maj. 3rd)



Example of the row *x* in retrograde form (i.e. the prime form played backward)



Example of the inversion of row *x* (created by taking each interval in the row and inverting them one at a time; i.e. if the first interval of the prime form ascends a major third, then the first interval of the inversion descends a major third or ascends a minor 6th; continue this process for all of the intervals, picking up where you left off with each new note you just generated from your last inversion)



Example of the row *x* in retrograde inversion form (i.e. the inversion form played backward)



The example composition/improvisation below is based exclusively on transpositions/inversions/etc. of this 12-tone row (which is the same row as example row *x* above, which I borrowed from Anton Webern's *Kinderstueck*, 1924); I omit articulations, dynamics, and other expressive marks for the sake of clarity and simplicity



Example of a composition/improvisation using a 12-tone row



This image displays a page of musical notation for a guitar piece, consisting of 12 staves. The music is written in a single melodic line on a treble clef staff. The key signature is one flat (B-flat), and the time signature is 4/4. The notation includes a variety of rhythmic values, including eighth and sixteenth notes, often beamed together. There are several instances of triplets, indicated by a '3' and a bracket. The piece features a complex harmonic structure with frequent chromaticism and accidentals (sharps and flats). The notation is dense, with many notes beamed together, suggesting a fast and technically demanding piece. The piece concludes with a final whole note chord on the 12th staff.

Part III: Musical Time and Rhythm

Introduction

Along with sound, the concept of musical **time**, or **rhythm**, in the most general definition of the term, is one of the most important aspects of music. Since music is by definition organized sound, then it follows that the sound you produce on your instrument is of paramount importance, and equally so is how your sound unfolds in time (i.e. how it is organized, which necessarily includes the concept of time since music is a temporal art form). So in short, **your sound and your sense of musical time are arguably the two most important and fundamental aspects of music making**. Time or rhythm as a musical topic is very broad and includes the concepts of specific musical rhythms, meter, rhythmic feel (i.e. swing vs. straight feel and aggressive vs. relaxed time-feel), tempo, polyrhythms, *hemiolas*, metric superimpositions, *claves*, and tightness or looseness of ensemble playing. In order to improvise effectively at a high level, you must address all of the various elements of rhythm on an ongoing basis.

Developing Good Time

Developing good musical time, like developing a high-quality sound on your instrument, is a lifelong pursuit. There are innumerable exercises you can perform with and without your instrument to improve your sense of rhythm and time. In general, in order to develop good time you must **listen to a wide variety of music regularly**. In order to begin to absorb the countless varieties of rhythmic concepts that exist in the world, you must expose yourself to many different styles of music repeatedly. Styles of music with particularly rich and varied rhythmic content include (but are not limited to) all styles of jazz, West African music, Hindustani music, gamelan music, 20th century classical music, Bulgarian and other Eastern-European folk music, Armenian music, traditional Irish and Celtic music, progressive rock and heavy metal (especially bands like Rush and Meshuggah), and Latin music (especially Afro-Cuban and Afro-Brazilian music). As you listen to music, clap along, sing along, tap along, dance along, and **locate rhythms you find particularly interesting and compelling, then absorb them into your musical consciousness through repetition**. Try creating your own exercises and rhythmic vocabulary based on the rhythms you collect from the music you enjoy the most. Try to **make rhythm a part of your daily routine**. Look for rhythms in nature and in the world around you and use them to try to create music whenever possible (for example, try singing or tapping polyrhythms on top of your car's turn signal when you are stopped at a traffic light, or use the rhythm of subway train noise as a background texture to practice rhythms with while traveling). I also recommend learning some of the fundamentals of drumming (practicing with a full drum set or auxiliary percussion, e.g. typical drum circle instruments, will both be helpful) and dancing through practical experience.

Internalize Rhythm

Rhythm is a fundamental part of the human experience; your heart beats in a steady pulse, the days, weeks, months, and seasons pass with a regular rhythm, you create a rhythmic pulse

when you walk or run, and our patterns of everyday speech have built in rhythmic characteristics such as pulse, specific rhythms, implied meters, and rhythmic cadences. Become aware of the integral role rhythm plays in your daily life and you will find many ways to practice rhythm and time as a musician outside of your designated practice sessions with your instrument. Ultimately, your goal should be to make **your sense of musical time and rhythm second nature**. You want to ingrain a high-quality and personalized approach to rhythm deep into your consciousness so that when you play music you can play with effortless mastery of time. Rhythm is such an elemental aspect of life and music that you want to master it to the point where you do not have to consciously think about time while playing music. The only way to attain a level of mastery where you no longer have to think about rhythm is to practice rhythm incessantly over a very long period of time. Though it may seem paradoxical or counter-intuitive, you have to spend a lot of time thinking about musical time in order to get to a level of mastery where you no longer have to think about it.

Develop Good Time Through Osmosis

In addition to listening to musicians who already have a great sense of time and rhythm, you should play along with recordings of great musicians. This allows you to get a practical feeling for what their sense of time feels like (pay particular attention to how an individual musician's sense of rhythm relates to the overall pulse of the music.) Also, listen to great music you find compelling and enjoyable in order to develop your own unique and personalized approach to musical time and rhythm. Use great music as a model to help guide you as you conceptualize and visualize how you want to express your sense of rhythm. While listening to and playing along with great recordings, ask yourself questions such as: Does this musician tend to play time with a feeling of relentless forward-driving motion (i.e. do they almost rush the tempo and play "on top of the beat")? Or do they play in a languid, relaxed, laid-back, and mellow fashion where they seem to always play their ideas almost too late (i.e. are they almost dragging or playing "behind the beat")? Or do they play with near metronomic precision and a steady, accurate pulse (i.e. do they play "on the center of the beat")? Do they play fast and complex rhythms or slower, simpler rhythms (or a specific combination of both)? Do they make use of a duple or a triple time feel (or a combination of both)? Do they play double- and/or triple-time rhythms? Do they effectively play rhythms in time? And can they also effectively execute rhythms "out of time" (intentionally)? How do they balance their use of space (i.e. silence or rests) with their use of rhythm? How repetitive or insistent are their rhythms, and how much rhythmic variety do they use? Do they use rhythm freely in an improvisatory manner, or does their use of rhythm seem highly regimented and controlled? Do they use some sort of clear strategy or technique to develop their rhythmic content in a specific and effective way (e.g. serialized rhythm)? As you find answers to questions such as these, you can learn which rhythmic techniques and approaches to musical time are most compelling and effective from your perspective, and then you can begin to incorporate them into your own playing and composing.

Also strive to gain practical experience by playing in live settings with musicians of a high caliber who already have developed a great sense of musical time. By playing regularly with musicians

who have good time, you can get a sense of how your time compares to theirs and you can gain valuable inspiration and insights from playing music with them. By playing music regularly with musicians who have an excellent sense of time (whether in person or by playing along with recordings), you will improve your sense of time through a time-tested process of **imitation** and **osmosis**. Osmosis in this context means the innate psychological process of assimilating new ideas and skills through repeated exposure, direct personal experience, and deliberate, focused, and regular practice.

Metronome Use

When practicing time and rhythm, it is important to have a balanced approach to **metronome** use. A musical metronome is a wonderfully useful tool and there are a wide variety of technologically advanced metronomes on the market (many of which are free to use online or as downloadable applications for your computer or smart phone). Take advantage of the wonderful exercises you can create and program for yourself using the latest metronome software. However, at a certain point (relatively early on) in your musical development, you should try to use metronomes progressively less often so that you can develop a strong sense of time on your own. Do not fall into the trap of allowing the metronome to become a crutch which artificially props up your sense of time (i.e. avoid relying too much on a metronome while practicing). Accordingly, I recommend using a metronome often early on in your practicing, but try to slowly wean yourself off the metronome as your sense of time and rhythm grows stronger and more advanced. Ultimately, make it your goal to be able to play a wide range of rhythmic content (from the very simple to the very complex) at a wide range of tempos (from extremely slow to as fast as possible) without the necessity of a metronome or any other time-keeping device.

Develop Strong Time Without Any Musical Support

Make it your goal to be able to **generate consistent musical time by yourself**. After you have developed a basic sense of how to maintain a musical pulse by playing along with recordings, playing with live musicians, and playing along with a metronome, try to play music completely solo without any rhythmic support. For example, play through a solo etude, play through a solo transcription (without the recording), play the melody to a jazz standard without accompaniment, solo over the form of a standard, or simply improvise freely in time by yourself. Try playing completely unaccompanied while tapping along with your foot. First try tapping on every beat, then tap only on beats one and three, then tap on beats two and four only (assuming you are playing in common 4/4 time). Eventually try tapping on one beat only per measure and vary which beats on which you choose to tap. Try tapping upbeats only or try tapping a repetitive rhythm other than simple quarter notes underneath your playing. For example, try improvising while tapping a common *clave* (See figure 6 in the Rhythmic Supplement Section for examples of common *clave* rhythmic patterns). While playing unaccompanied, occasionally record yourself and then tap along as you listen back to what you played to get a sense of how well you can generate and maintain a steady musical pulse.

Another exercise you can perform to develop your time while simultaneously helping you to internalize a jazz standard (or any other set of chord changes you are trying to memorize) involves picking one rhythmic subdivision and playing an entire chorus or harmonic cycle using only that subdivision. Start by playing a whole chorus using only whole notes, for example (a good suggestion might be to start by only playing the roots of the harmonies in the chord progression in whole notes). Then play an entire chorus using only half notes, then half-note triplets, then quarter notes, quarter-note triplets, eighth notes, eighth-note triplets, and so on (try sixteenths and other subdivisions as well, if possible at the given tempo). The repetition of improvising with simple rhythms over the course of many choruses will help you to internalize the chord progression of the piece of music you are trying to learn while simultaneously giving you a chance to work on developing your ability to generate and maintain a steady musical pulse using various basic rhythmic subdivisions. See Figure 5 in the Rhythmic Supplement Section for examples of this exercise applied to a twelve bar blues progression.

Vary Your Tempos and Focus on Different Subdivisions

As you work on developing your time, keep in mind the need to practice music at a wide variety of tempos. Always work on rhythmic exercises (and any other general musical exercises/concepts you are working on) at very fast and very slow tempos whenever possible. Playing at extremely slow and extremely fast tempos are both very difficult for different reasons. There are strategies you can adopt while playing at difficult and/or extreme tempos to help make the pace of the music more manageable. First of all, try to remain physically and psychologically relaxed at all times while playing, especially when playing technically difficult music and/or music at very fast tempos. Your technique is most consistent and fluid when you are relaxed both physically and mentally; therefore you should draw your attention to any physiological and/or psychological tension you may experience while practicing and make a conscious effort to always release tension whenever and wherever you find it. In this way you will develop the habit of always remaining relaxed and in control of yourself (and the music) while playing.

It may seem counterintuitive, but it is highly important to relax when playing fast or complicated music. When playing very difficult and/or very fast music, it is easy to let the emotions of the music affect your physical and psychological approach to playing. Try to avoid this if it is negatively affecting your playing, especially in the context of practicing, when you need to maintain self-awareness and focus on what you are doing in order to improve yourself. As a musician, you should strive to maintain a delicate balance where you allow yourself to be deeply emotionally invested in what you are playing while simultaneously not losing yourself in the music to such an extreme degree that you lose your control over the elements of music. Since music is inherently emotional, it may seem ironic or paradoxical, but it is important to note that if you become so caught up in the emotions of the moment that you lose sight of what you are trying to communicate as you are playing, it may lead to less effective musical expression. You must feel deeply aware of the emotion behind the music as you are playing, yet you must also remain detached and self-aware just enough to maintain control over what you are playing so that you can effectively communicate your feelings through your music. When

playing fast and/or challenging music, it is easy to feel stress, anxiety, and/or excitement. The natural human reaction to stress and excitement is increased physical and psychological tension; tension often inhibits your ability to play with good time. So, again, though it might appear counterintuitive to think and behave in a way that seems to contradict the emotions behind the music, try to remain relaxed and levelheaded while playing at fast tempos.

The best way to immediately improve your control over slow and fast tempos is to take advantage of the concept of rhythmic subdivision as it relates to musical pulse. By switching the emphasis of the pulse you are feeling to either larger or smaller units of musical time, you can make extreme tempos more manageable. For example, while playing music at a relatively fast tempo, say 250 beats per minute in 4/4 time, it is difficult feel (or tap) the quarter note pulse without feeling frantic, chaotic, and uncontrolled. A frantic sense of the pulse usually leads to inconsistent and ineffective musical time. So, to make 250bpm more manageable, instead of trying to feel or tap the quarter-note pulse, tap along and/or conceptualize the pulse of the music in half notes or whole notes. This shifts your physical and psychological perception of the tempo; feeling quarter notes at 250bpm is difficult and stressful, but by doubling the time unit of your perceived pulse from quarter notes to half notes, you effectively cut your perception of the tempo in half. Thus a frantic 250bpm becomes a leisurely 125bpm feel (just remember that if you do this, the measures and individual rhythms of the music will be going by twice as fast based on your new perception of the pulse). This simple psychological trick can help your mind and body better digest fast tempos by instantly simplifying your perception of a fast pulse to a slower, more manageable pulse. You can also apply this same tactic in reverse to slow tempos. For example, maintaining a steady quarter note pulse at 40bpm in 4/4 time is extremely difficult because so much time elapses between individual beats. So take the same logic applied above to fast tempos and reverse it: instead of switching your perception of a fast 250bpm quarter note pulse to a slower 125bpm half note pulse, take a slow 40bpm quarter note pulse and double it to a faster, more manageable 80bpm eighth note pulse (or even better still, in the case of a tempo as slow as 40bpm, it may be most comfortable to subdivide each beat into eighth-note triplets or sixteenth notes). By subdividing a slow tempo into a perceived faster tempo with a different rhythmic emphasis, you psychologically fill in all the dead space between individual beats, thus making the tempo more controllable and less awkward.

Swing vs. Straight Time-Feel

One of the fundamental concepts of musical time you need to address if you improvise in a jazz setting is the concept of **swing**. When applied to rhythm, swing refers to the use of a polyrhythmic, triplet based time-feel (to be used even when you are playing jazz in a simple duple meter). It is generally accepted that the iconic and highly characteristic lilting, bouncing, triplet-based swing feeling prevalent in most styles of jazz is the result of the influence of polyrhythmic (often triplet-based) and syncopated West-African music on jazz (for further discussion of and evidence for this fact, see *African Dance: An Artistic, Historical, and Philosophical Inquiry* by Kariamuwelsh-Asante and *African Art in Motion* by Robert F. Thompson; detailed references for these texts are listed below in the recommendations for further reading section of this book). In some older written-out arrangements of jazz

compositions, I have discovered that it is common to see “swing” feel indicated through the use of a dotted-eighth note followed by a sixteenth note. This is a common misconception regarding swing. Dotted rhythms are duple based and do accurately represent the authentic swing feeling present in most styles of jazz. Part of the rhythmic joy, vitality, and uniqueness of jazz comes directly from its frequent use of polyrhythms, the most basic and common of which are the 3:2 (also called a *hemiola* or *sesquialtera*) and 2:3 polyrhythms. The delightful rhythmic tension that permeates most swing-based styles of jazz arises from the layering of duple and triple feels on top of one another. See Figures 1-6 in the Rhythmic Supplement Section below for a visual guide to swing feel and polyrhythms using music notation.

Practice Polyrhythms

One of the best ways to improve your sense of musical time is to practice **polyrhythms** and rhythmic independence exercises. In order to address polyrhythms, you first must develop a good sense of duple and triple time-feels by themselves. A good exercise to start with is to put a metronome at a moderate tempo and switch back and forth between duple- and triple-based time-feels. Start by playing simple melodic and rhythmic fragments over and over again. Then move on to improvising rhythms with both a duplet and triplet time-feel once you feel more comfortable. After you get comfortable performing these exercises with a metronome try practicing without the metronome. For an added challenge, try performing this exercise while improvising over jazz standards (or while trying to improvise twelve-tone rows). One useful exercise that combines playing with dance is to march while your practice by stomping out a pulse lightly with your feet while simultaneously improvising rhythms (switch time-feels at will). See Figures 2 through 6 in the Rhythmic Supplement Section below for examples of various polyrhythms and ways you can switch time-feels as well as sample exercises and visual aids using music notation.

After you feel you have a decent grasp of duple and triple time-feels separately, you can move on to polyrhythmic exercises and rhythmic independence exercises. The most basic exercises is to tap or lightly stomp your feet using one rhythmic feel while playing rhythms in a different time-feel. For example, tap quarter notes in common (4/4) time and play rhythms using quarter-note and eighth-note triplets only (and vice versa). You can also practice polyrhythms away from your instrument by tapping a rhythm with one hand and tapping another rhythm with your other hand (or by dividing up different rhythms between your hands and your feet). Thus there are many ways to develop rhythmic independence both with and without your instrument. Another exercise that incorporates melody involves playing melodic fragments that are clearly grouped in numerical sets that do not align with the rhythms you are playing. For examples, play triplets in melodic fragments clearly divided into groups of 2 or 4, or play eighth or sixteenth notes in groupings of 3, 5, or 7 (see Figure 3 in the Rhythmic Supplement Section for examples). See Figures 2 through 6 in the Rhythmic Supplement Section below for sample exercises and visual aids using music notation.

Odd Meters

Odd meters are becoming more and more common in modern music, especially in modern jazz and classical styles; I have discovered this from personal experience, and I can attest that the majority of my original compositions employ odd meters and/or odd/irregular rhythmic phrasing. The goal when practicing and playing using odd meters is to make them feel as natural and easy as the more common, basic triple and duple meters. Playing in meters based on groupings of five, seven, eleven, thirteen, etc. is easier than it may seem at first because all odd meters can be subdivided into groupings of the more familiar patterns; in other words, you can break down odd meters into smaller segments based on groupings of two and three. For example, 5/4 time can be broken down into a two-plus-three (2 + 3) pattern (i.e. a 2/4 bar followed by a 3/4 bar) or vice versa. You can break 5/4 down even further and think of it as two 5/8 measures, and you can break down the two 5/8 bars into a 2 + 3 or 3 + 2 pattern. Following this logic, there are a multitude of ways you can break down any odd meter into more manageable and common rhythmic patterns, which will help you digest and conceptualize them more readily. Figure 4 (especially Sets #3 and #4) in the Rhythmic Supplement Section below show many examples of ways you can break down odd meters into more manageable and familiar rhythmic segments. Take these various odd-meter rhythmic patterns one at a time and repeat them over and over again by tapping or clapping them. After you get more comfortable with the rhythms, trying improvising freely or over a jazz standard playing only one rhythmic set at a time until you become comfortable enough with it to start varying it. Move through each set of odd meter rhythmic patterns one at a time until they become as comfortable and natural to use as the more basic rhythmic elements in Figure 4 of the Rhythmic Supplement Section below. Eventually, make it your goal to be able to play with the same amount of freedom and creativity in odd meters that you have in duple and triple meters. Accordingly, it is important to gradually move away from playing the repetitive rhythmic patterns over odd meters and to begin to play with more natural, free, varied, and unpredictable rhythmic phrasing.

Playing Good Time with Other Musicians

Along with developing a solid sense of musical time on your own, you need to address how to play with a good sense of rhythm while playing with other musicians. Having a strong sense of time on your own is the firm foundation you will need in order to play with other musicians effectively. However, playing with other musicians is very different than playing solo (i.e. unaccompanied). First of all, it is important to note that playing with *good* time does not necessarily mean playing with *metronomic* time (this applies both to playing solo and playing with other musicians). Good time happens when musicians make the time *feel good*. Although it is a useful skill to be able to generate and maintain a mathematically accurate pulse while playing (i.e. keep metronomic or “perfect” time), the truth is that humans do not function the same way that computers do, and therefore oftentimes a certain amount of ebb and flow in the pulse of the music is desirable and preferable to strictly mathematical time keeping. Whether playing by yourself or with others, try always to be aware of your sense of tempo and rhythm, but allow the music to breathe and allow the time to be flexible if it feels natural and right to do

so. A quick survey of great jazz recordings reveals that tempos fluctuate regularly during many individual songs. Sometimes this happens intentionally, sometimes it occurs unintentionally. The point is that it usually happens because it feels right and natural; it feels as if that is the way the music was meant to go; there is a sense of inevitability and correctness about the push and pull of the time. The nature of rhythmic tension and release means that often times tempos will fluctuate, and this is not necessarily a negative effect, as long as the musicians play together with cohesion and a good sense of ensemble time.

It is therefore important to listen actively to the musicians you are playing with when playing in ensemble settings. Tune in to the way they feel time and try to get inside your fellow musicians' individual time-feels. Try to find a collective ensemble time-feel that feels good and gives the music a sense of life, forward direction, and unity. When you have a strong sense of individual time, you have a choice to either consciously play cohesively with your musical collaborators (creating a very polished and "tight" ensemble sound) or you can choose to consciously play with a conflicting or contrasting time-feel, thus creating musical tension and drama. The most important point is to actively maintain conscious awareness of how you fit in to the ensemble sound so that your rhythmic choices are made with clear intent and awareness. Avoid the pitfall of not interacting with the musicians you are playing with. Ignoring and not interacting with your fellow musicians usually makes the music sound stale and disconnected, and a lack of interaction robs the music of its emotional and artistic powers of expression.

Also avoid the trap of always struggling to be "right;" even if you have metronomically accurate time, it does not serve the music to try to force your sense of time on the rest of the ensemble if that is not what the musical context calls for. The goal of ensemble playing is to play with a good sense of collective time, not to prove your rhythmic mastery to others by playing with mathematically accurate time, especially if it means ignoring or going against the time-feels of those around for no reason other than to prove a point. You have to find a balance between being rhythmically confident and assertive with your individualistic time-feel while simultaneously being flexible and cooperative in your rhythmic approach so that you can make the best music possible with a wide variety of other musicians. Try to develop reactionary and predictive instincts while playing with other musicians. Like spoken language, music has rhythmic phrasing, cadences, and moments of tension and release; you can learn how to effectively react to and predict these elements of rhythm just as you can predict and react to these elements when speaking in conversation with others. Through practice and concentrated listening, you can develop the skills necessary to sense your fellow performers' rhythmic intentions and you can learn to recognize their unique and personal lexicon of rhythmic vocabulary, which then enables you to develop strategies that help you coalesce rhythmically with other musicians effectively. Active listening, open-minded interaction, and practical experience playing good time with other musicians are the ultimate keys to mastering the ability to play with others in an effective and meaningful way.

Rhythmic Supplement Section

General Notes: For each exercise, practice both with and without a metronome at various tempos, keeping in mind all of the important physiological and psychological points and concepts discussed in the text above. Try applying these exercises various ways by practicing them both with and without your instrument (when and where possible). Also perform these exercises by combining the rhythms with various sources of melodic material such as scales, chords, and scale patterns. Try superimposing these exercises on jazz standards while practicing improvisation and use these exercises as launching points for free improvisation for an added challenge.

Figure 1: Conceptualizing swing time-feel for eighth notes

Incorrect swing-feel model

Correct, triplet-based swing-feel model

Figure 2: Common polyrhythms

3:2 (3 over 2) polyrhythm (also called a *hemiola* or *sesquialtera*)

2:3 (2 over 3) polyrhythm

4:3 (4 over 3) polyrhythm

3:4 (3 over 4) polyrhythm

3:5 (3 over 5) polyrhythm

5:4 (5 over 4) polyrhythm

7:5 (7 over 5) polyrhythm

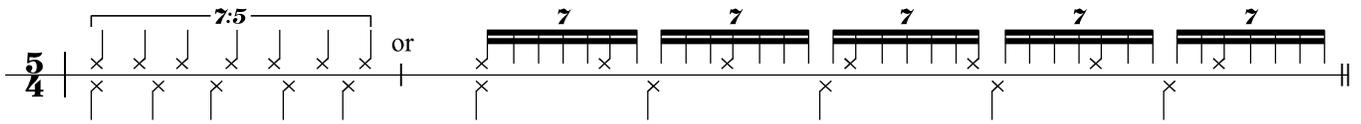


Figure 3: Basic inventory of common rhythmic units and subdivisions (not all possible combinations are included for the sake of concision; note that tuplets can be applied to any subdivision at any ratio)

Triple-dotted whole note 7 & 1/2 beats	Double-dotted whole note 7 beats	Dotted whole note 6 beats	Whole note 4 beats	
Half notes 2 beats each	Half-note triplets 3:2 polyrhythm	Quarter notes 1 beat each	Quarter-note quintuplets 5:4 polyrhythm	Quarter-note triplets 3:2 polyrhythm
Eighth notes 1/2 beat each	Eighth-note quintuplets 5:4 polyrhythm	Eighth-note triplets 3:2 polyrhythm		
Eighth-note septuplets 7:4 polyrhythm	Sixteenth notes 1/4 beat each	Sixteenth-note quintuplets 5:4 polyrhythm		
Sixteenth-note triplets 3:2 polyrhythm	Sixteenth-note septuplets 7:4 polyrhythm	Thirty-second notes 1/8 beat each	Thirty-second-note quintuplets 5:4 polyrhythm	
Thirty-second-note triplets 3:2 polyrhythm	Thirty-second-note septuplets 7:4 polyrhythm			
Sixty-fourth notes 1/16 beat each	One-twenty-eighth notes 1/32 beat each	Two-fifty-sixth notes 1/64 beat each	Five-hundred-twelfth notes 1/64 beat each	etc...

Figure 4: Example polyrhythmic and rhythmic independence exercises (for additional challenging exercises, take the top lines from any exercise set and try imposing them on top of the bottom lines from a different exercise)

Set #1 (based on 6/8 and 3/4 rhythms - can be used in either meter)

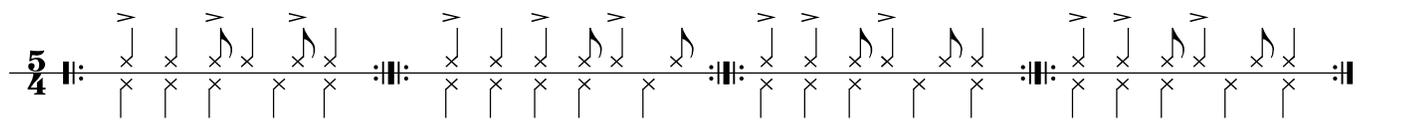
Set #1 consists of five musical staves. The first three staves are in 6/8 time, and the last two are in 3/4 time. Each staff contains two lines of rhythmic notation: a top line with notes and rests, and a bottom line with 'x' marks representing drum hits. The exercises include various rhythmic patterns such as eighth notes, quarter notes, and rests, often with accents. The second staff in 3/4 time features a 4:3 polyrhythm indicated by brackets above the notes. The notation is repeated twice per staff, with 'etc...' indicating further repetition.

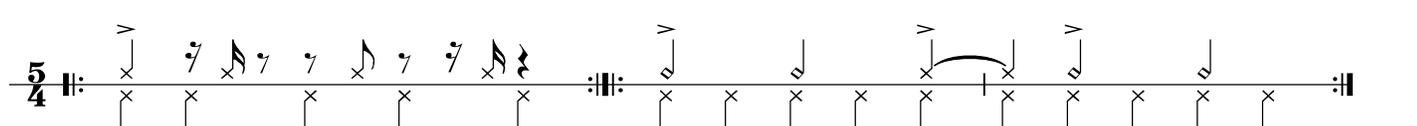
Set #2 (based on 6/8 and 3/4 rhythms; can also be applied to quarter note triplets over quarter notes in duple time)

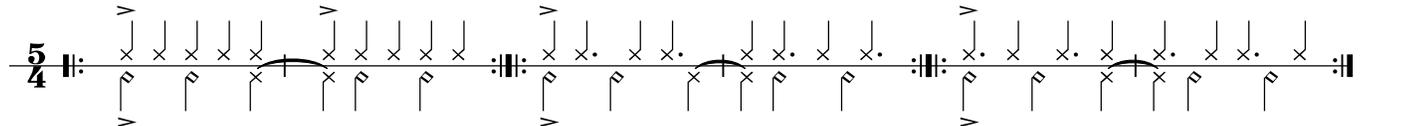
Set #2 consists of two musical staves. The first staff is in 6/8 time and the second is in 3/4 time. Each staff contains two lines of rhythmic notation: a top line with notes and rests, and a bottom line with 'x' marks. The exercises feature patterns of eighth notes, quarter notes, and quarter note triplets. The notation is repeated twice per staff, with 'etc...' indicating further repetition.

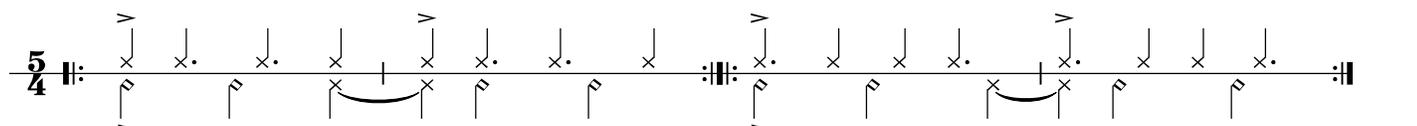
Set #3 (based on groupings of 5 and 5/4 time)

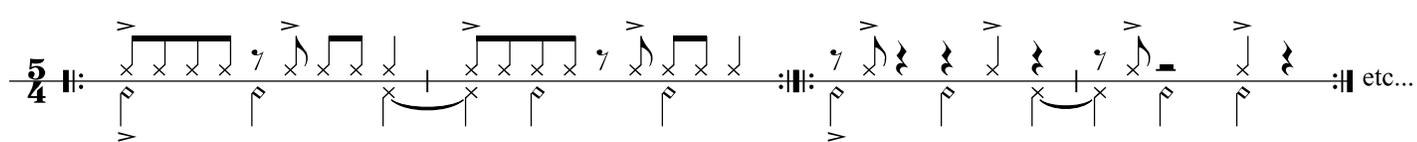
Set #3 consists of four musical staves. The first two staves are in 5/4 time, and the last two are in 5/8 time. Each staff contains two lines of rhythmic notation: a top line with notes and rests, and a bottom line with 'x' marks. The exercises feature patterns of quarter notes, eighth notes, and quarter note triplets. The notation is repeated twice per staff, with 'etc...' indicating further repetition.

5/4 II: 

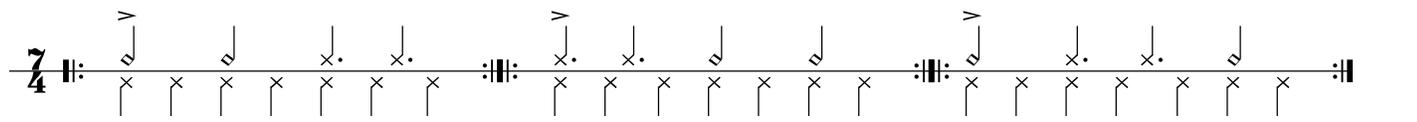
5/4 II: 

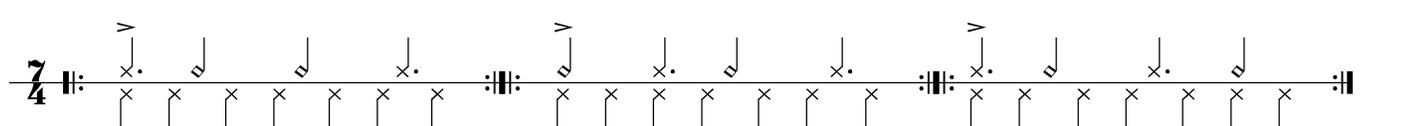
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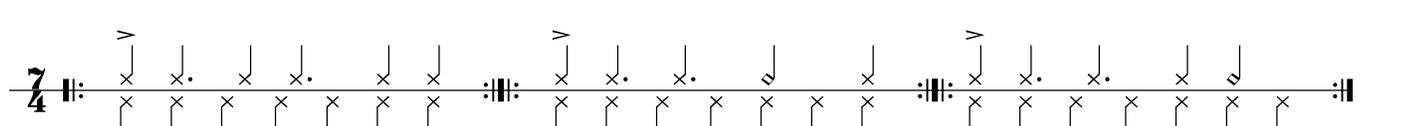
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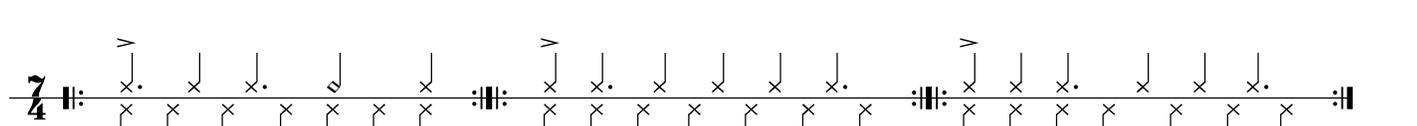
5/4 II:  etc...

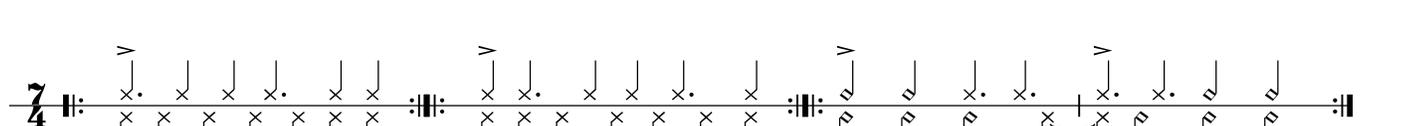
Set #4 (based on groupings of 7 and 7/4 time)

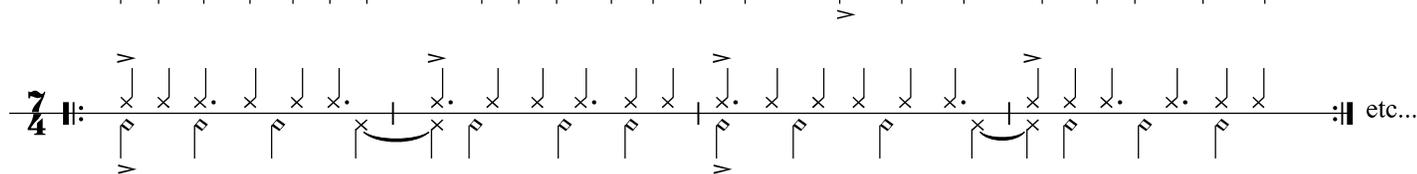
7/4 II: 

7/4 II: 

7/4 II: 

7/4 II: 

7/4 II: 

7/4 II:  etc...

etc...

Groupings of 2, 4, 5, and 7 using triplets

etc...

etc...

etc...

etc...

Examples of shifting rhythmic emphasis over a 12-bar blues
(in 4 bar segments - duple rhythms contrasted by triplet rhythms)

G7 C7 G7 Dm7 G7

C7 C#07 G7 E7

Am7 D7 G7 E7 Am7 D7

G7 C7 G7 Dm7 G7

C7 C#07 G7 E7

Am7 D7 G7 E7 Am7 D7

etc...

Figure 4: Simple rhythmic subdivisions over standards example: 12-bar blues

Two examples each per staff when two layers appear

Chord progression: G7 C7 G7 Dm7 G7 C7 C#o7 G7 E7 Am7 D7 G7 E7 Am7 D7

etc...

etc...

etc...

etc...

etc...

etc...

(Example with broken-up rhythms; quarter notes only)

Chord progression: G7 C7 G7 Dm7 G7 C7 C#o7 G7 E7 Am7 D7 G7 E7 Am7 D7

etc...

etc...

etc...

C⁷ C^{#o7} G⁷ E⁷
 Am⁷ D⁷ G⁷ E⁷ Am⁷ D⁷ etc...

This musical example shows two staves of music. The top staff contains four measures of music, each featuring a quarter-note triplet. The notes within each triplet are broken up with various accidentals (sharps, naturals, flats) and stems. The bottom staff continues this pattern with another four measures, also using quarter-note triplets with broken-up rhythms. The key signature changes from C major to C# minor between the two staves.

(Example with broken-up rhythms; quarter-note triplets only)

G⁷ C⁷ G⁷ Dm⁷ G⁷ C⁷ C^{#o7}
 G⁷ E⁷ Am⁷ D⁷ G⁷ E⁷ Am⁷ D⁷ etc...
 G⁷ C⁷ G⁷ Dm⁷ G⁷
 C⁷ C^{#o7} G⁷ E⁷
 Am⁷ D⁷ G⁷ E⁷ Am⁷ D⁷ etc...

This musical example consists of six staves of music. The first two staves show quarter-note triplets with broken-up rhythms, similar to the first example. The third and fourth staves show eighth-note patterns with broken-up rhythms, where some notes are simplified to staccato quarter notes. The fifth and sixth staves continue with eighth-note patterns and broken-up rhythms. The key signature changes from C major to C# minor between the second and third staves.

(Example with broken-up rhythms; eighth notes only - sometimes simplified to staccato quarter notes in notation for clarity)

G⁷ C⁷ G⁷ Dm⁷ G⁷ C⁷

This musical example shows a single staff of music with six measures. Each measure contains eighth notes with broken-up rhythms, including staccato quarter notes. The key signature changes from C major to C# minor between the second and third measures.

C7 C#07 G7 E7
 Am7 D7 G7 E7 Am7 D7 etc...
 G7 C7 G7
 Dm7 G7 C7 C#07
 G7 E7 Am7
 D7 G7 E7 Am7 D7 etc...

(Example with broken-up rhythms; sixteenth notes only, sometimes simplified to staccato eighth notes in notation for clarity)

G7 C7 G7
 Dm7 G7 C7 C#07
 G7 E7 Am7
 D7 G7 E7 Am7 D7 etc...

Figure 6: Examples of common *clave* rhythmic patterns

Son clave

or

Rumba clave

or

2-3 clave

or

or

or

or

3-2 clave

or

or

or

or

6/8 or 3/4 clave

7/8 + 5/8 clave *5/8 + 7/8 clave*

etc...

Part V: Form

Introduction

Another important musical concept is the idea of musical **form**, which generally refers to how smaller melodic/harmonic/rhythmic phrases and other musical fragments are combined and organized to create coherent larger-scale (and generally longer) pieces of music. The concept of form includes relatively specific organizational/structural plans, patterns, models and/or outlines (such as blues and rhythm changes forms in jazz and binary, sonata, ternary, rondo, and variations forms in classical music). But form also refers to the more general concepts, goals, strategies, and motivations that influence how musicians/composers structure their music (studying compositional concepts and techniques is always useful; improvisation and composition are closely related: compositions are merely written-down improvisations, often more highly edited and controlled). The more advance of an improviser/composer you become, the more likely you are to become interested in various ways you can improve and/or vary the overall structure of your improvisations and compositions with efficacy. As an improvising and/or composing musician, studying and thinking about form gives you a wealth of ideas to inspire and inform your improvisations and compositions.

Basic Concepts: Cohesion, Contrast, and Thematic Development

There are a few very basic and conventional concepts to consider when thinking about how you can structure your improvisations and compositions. You may decide to utterly disregard, contradict, or go against these conventional concepts at some point, but it is important that you understand the conventions in the first place so that you are fully aware of *what* you are rejecting and rebelling against (and thus have a clear intent and a clear reason *why*). Also, there is something to be said for the fact that effective communication, both verbal and musical, requires adherence to established conventions to a certain degree. Music is very similar to conversation in that it is based on interpersonal communication. Imagine a conversation where every individual involved arbitrarily makes his or her own rules of language and verbal meaning while completely ignoring everyone else; effective communication would be nearly impossible in such a situation. So, just as people have developed conventions regarding the purpose, meaning, and structure of language, there are some general and widely accepted theories and principles regarding the structure of music that you should be aware of.

Musicians, especially when dealing with longer and/or larger-scale works, are often concerned with the concept of **cohesion** or **unity**. Just like in conversation, musical communication is often most effective when it clearly focuses one theme, concept, subject, idea, emotion, etc. When you have an important verbal discussion, there is usually an explicit or implicit theme or topic for the given conversation; effective communication would break down if people changed the topic of discussion mid-sentence every time they spoke. This is not to say that every discussion has or should have a regimented and immutable plan or agenda; people change topics or

themes often during a discussion (sometimes very suddenly and without warning). But typically people spend an ample amount of time on the topic at hand while conversing before moving on to a new subject, and the transitions from topic to topic are usually announced explicitly or implicitly through various verbal or non-verbal cues. High-quality conversations have a logical, natural flow which is dictated by the nature of the personalities and topics involved. So musicians often approach composition and improvisation with this same paradigm of communication in mind: a given composition or improvisation (or a clearly demarcated, reasonably self-contained section *within* a larger piece of music or an improvised solo) should maintain a certain amount of cohesion and unity, i.e. it should focus on one or a few closely related musical and expressive ideas.

To balance the concept of cohesion, musicians often desire a certain degree of **contrast** within a single composition or solo as well. Musical cohesion and unity are important considerations, but this does not mean that music should be so focused on one idea that it becomes bland, boring, or ineffective due to a lack of variety and/or excessive repetition. Again, just as in conversation, communication would become boring, meaningless, and ineffective if you only ever spoke about one topic (or if you only ever repeated one single idea over and over again when discussing a given topic). So, musicians often incorporate contrasting elements into their music to give it variety and depth. In other words, it is widely believed that music should be neither too repetitive nor too unpredictable (I recommend exploring Birkhoff's theory of aesthetic value for more details about – and a validation of – this concept; see the recommended reading section below for additional reading).

The combination of the notions of cohesion and contrast naturally leads to the widely used concept of **thematic development**. Thematic development is the idea that musicians can take a central music idea, or theme, and vary it, change it, morph it, (i.e. develop it), etc. over the course of a composition or improvisation. The fact that one theme is the primary source from which all of the other musical material is derived gives the music unity, coherence, and cohesion; the fact that the main theme is transformed and varied (or contrasted by an idea that complements and/or fits in with the main theme) lends the music a sense of variety and depth. Some music focuses solely on one primary theme, but a given piece or section of music can also focus on multiple interrelated or logically complementary musical ideas.

Thematic development in music can be achieved through a wide variety of means. Melodies can retain their fundamental identity (i.e. still be recognized consciously or subconsciously as related to a previously stated musical idea) but be fragmented, added to, subtracted from, transposed to different keys/modes/pitch levels (e.g. played in a **sequence** where a melodic fragment is repeated at multiple different pitch levels – see Section 1 in the Melodic and Harmonic Supplement Section for many different scale patterns which utilize sequences; for more examples of sequences in action, explore music from the Baroque era, especially John Sebastian Bach's music), slightly altered in pitch organization, played in different pitch registers or by different instruments or instrument groups in an ensemble, intervallically inverted, layered on top of one another, re-harmonized, or varied in numerous other ways (such as through alterations in dynamics, articulations, timbre, etc.). Likewise, rhythms can retain their fundamental identity but be shortened, lengthened, added to, subtracted from, elongated,

protracted, shifted to a different part of the pulse or meter, fragmented, played backwards or inverted, shifted to a different rhythmic time feel (e.g. shifted from a duple to a triple feel), layered on top of other rhythms, or varied in other ways. Additionally, harmonic themes/ideas can retain their fundamental identity but be fragmented, added to, subtracted from, transposed to different keys/modes, sped up, slowed down, played in different inversions or registers, omitted, or otherwise altered to create variety while still maintaining musical cohesion. Try to devise and develop additional strategies of your own you can employ to take a musical theme or idea (e.g. a melodic fragment, a specific interval or combination of intervals, and specific harmony or type of harmony, a specific rhythm or rhythmic texture, etc.) and vary it while still retaining enough of its core identity for it to be perceived as related to its originally stated version.

Some examples of somewhat standardized strategies that aim at creating musical cohesion through thematic development include the sonata form model (see the Brief Introduction to Standard Forms section below for a brief discussion of sonata form), Richard Wagner's *leitmotif* concept (which assigns specific musical themes to characters, objects, and ideas and then partially disguises and transforms them to fit in with various emotional/musical contexts), Franz Liszt's **thematic transformation** or thematic metamorphosis (which built on the techniques Ludwig van Beethoven used as he developed themes in his music, especially in his Fifth and Ninth Symphonies), Hector Berlioz's *idée fixe* concept (which uses a short, recurring musical theme in various adaptations throughout a single piece of music to achieve unity), and Schoenberg's **12-tone system** (which bases an entire composition on a single specific series or row of all twelve chromatic pitches and derives variations of the tone row by performing various operations on the series; see Section 6 of the Melodic and Harmonic Supplement Section above for further explanation and examples of this system in action). I recommend you explore these varied approaches to musical structure to provide you with inspiration and ideas of your own (for more information about these and other historical and contemporary systems of musical organization, see the music history and theory texts referenced in the recommend reading section at the end of this book).

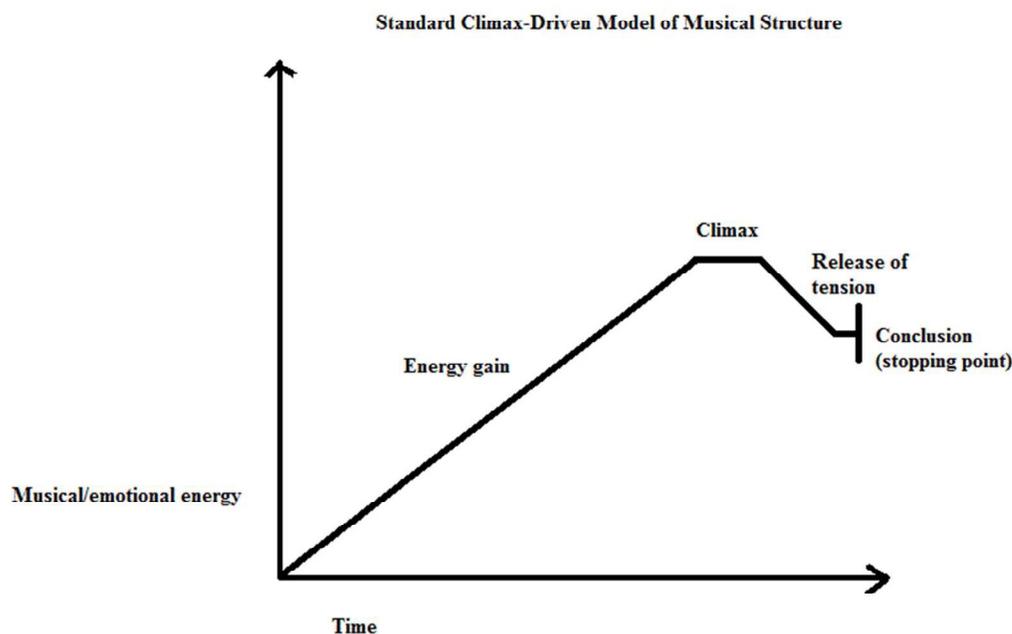
Common Formal/Structural Models: A Few Examples

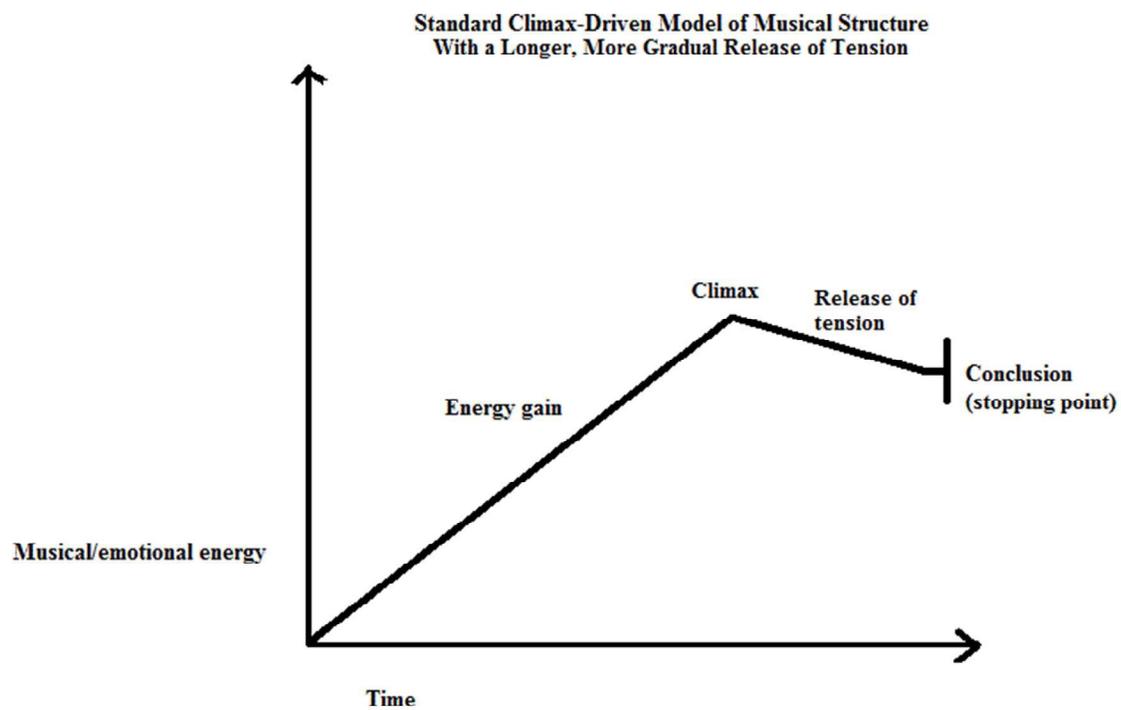
There are many conceptual models that musicians (both past and present) have frequently used to help guide the structure of their music. Examining a few examples of conventional formal models will give you inspiration and ideas which you can use to develop your own unique and personalized approach to musical form as you compose and improvise. Before briefly exploring some of the basic concepts behind standardized formal models, it is useful to explore a few of the common general outlines of overall musical structure you can use while improvising and composing. The most important fundamental elements that influence musical structure are the concepts of overall **musical/emotional energy** and **consonance vs. dissonance** (i.e. tension and release/repose). Just as a spoken or written story has a narrative structure which follows certain patterns of increasing and/or decreasing energy or conflict, music often unfolds in a way such that the emotional energy of the composition/improvisation has a clear sense of **direction** or **arc** (and often a **climactic** point, usually near the end, where

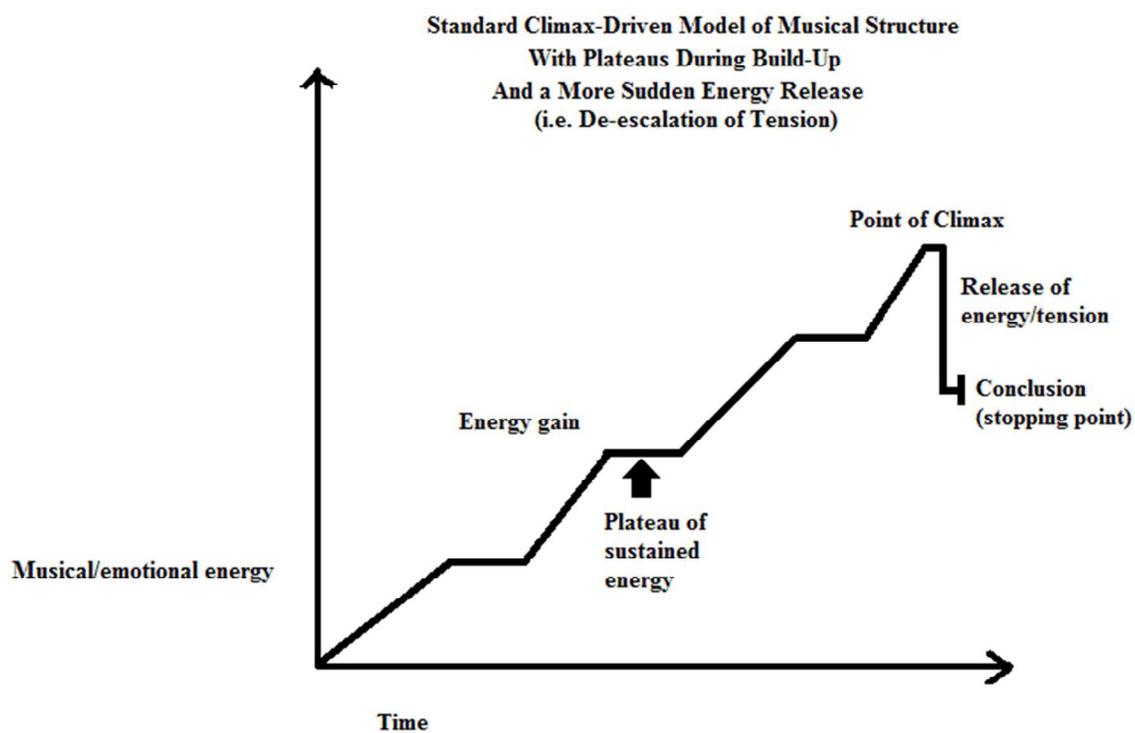
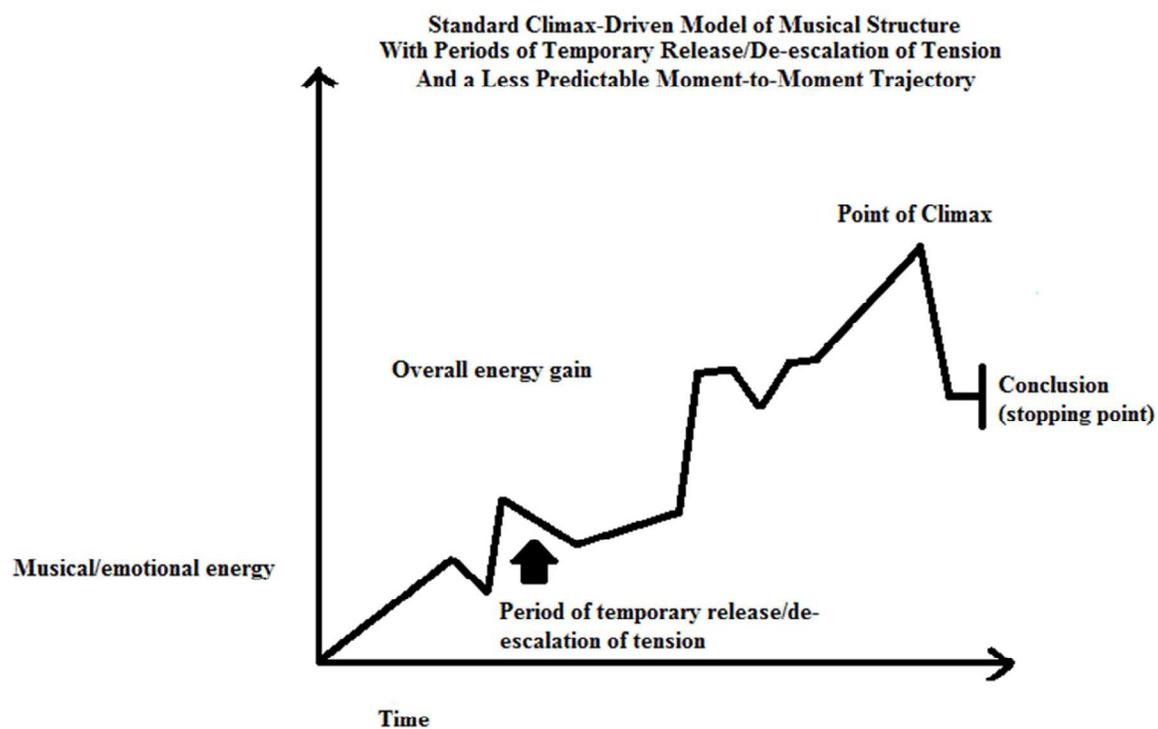
the music reaches its most intense point before releasing the built-up tension and coming to a conclusion).

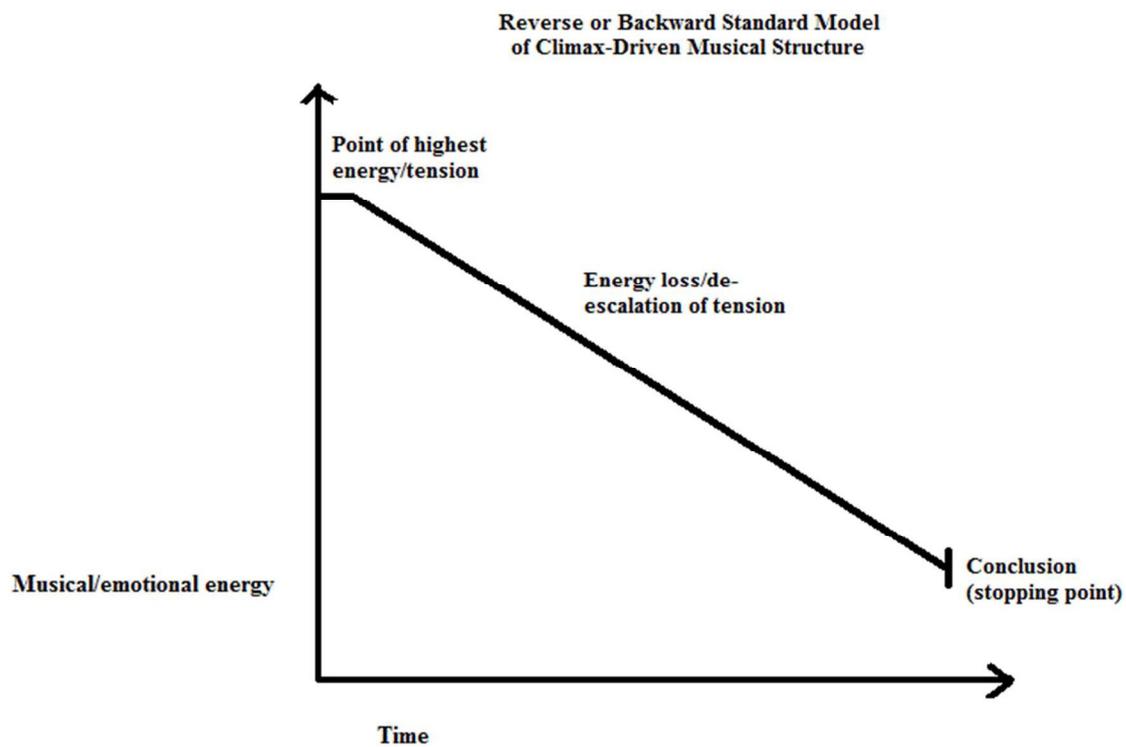
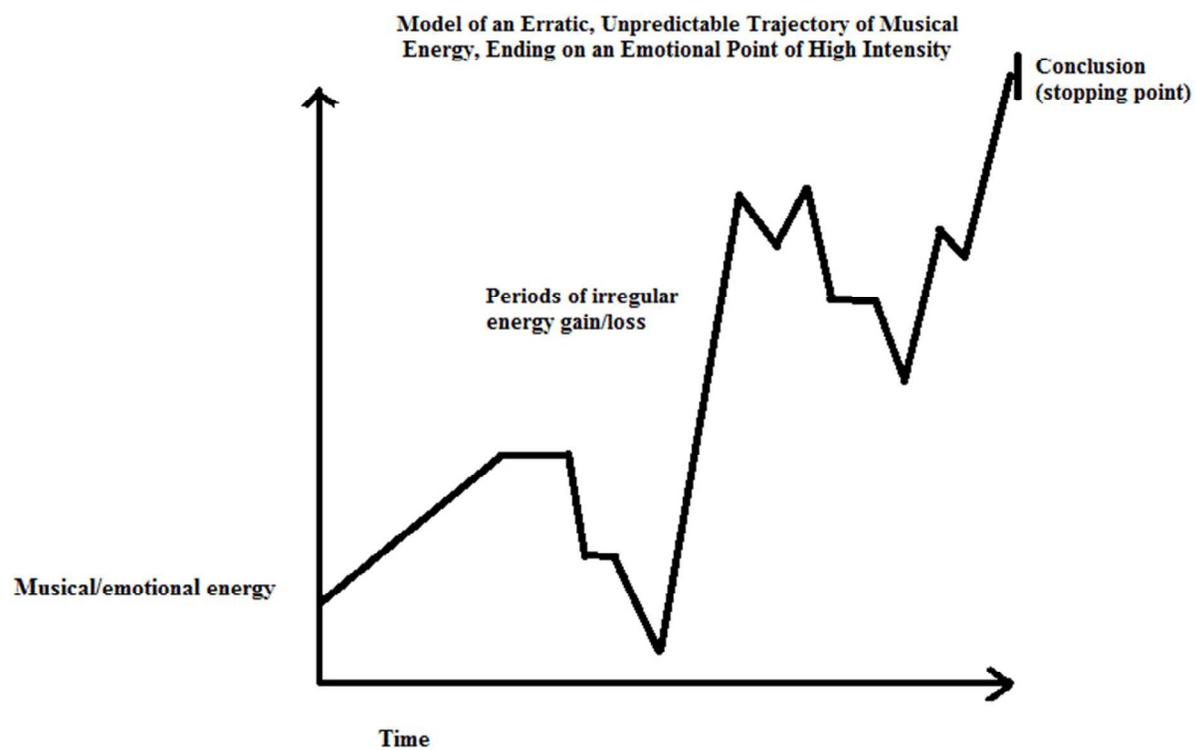
There are many strategies you can employ to manipulate the overall emotional energy and/or tension in your music. You can create a sense of swelling emotional/musical energy by increasing or varying the tempo, rhythmic density/complexity, dynamics (i.e. volume), textural density/complexity, melodic and/or harmonic dissonance, pitch range, etc. You can also use more ascending melodic and harmonic figures, relentlessly repetitive ideas, and faster/more complicated rhythms and melodies. Timbre is another (often ignored) important factor which wields a great influence over the emotional energy of the music; you can create a greater or lesser sense of urgency and forward motion by altering the brilliance, intensity, and forcefulness of your sound.

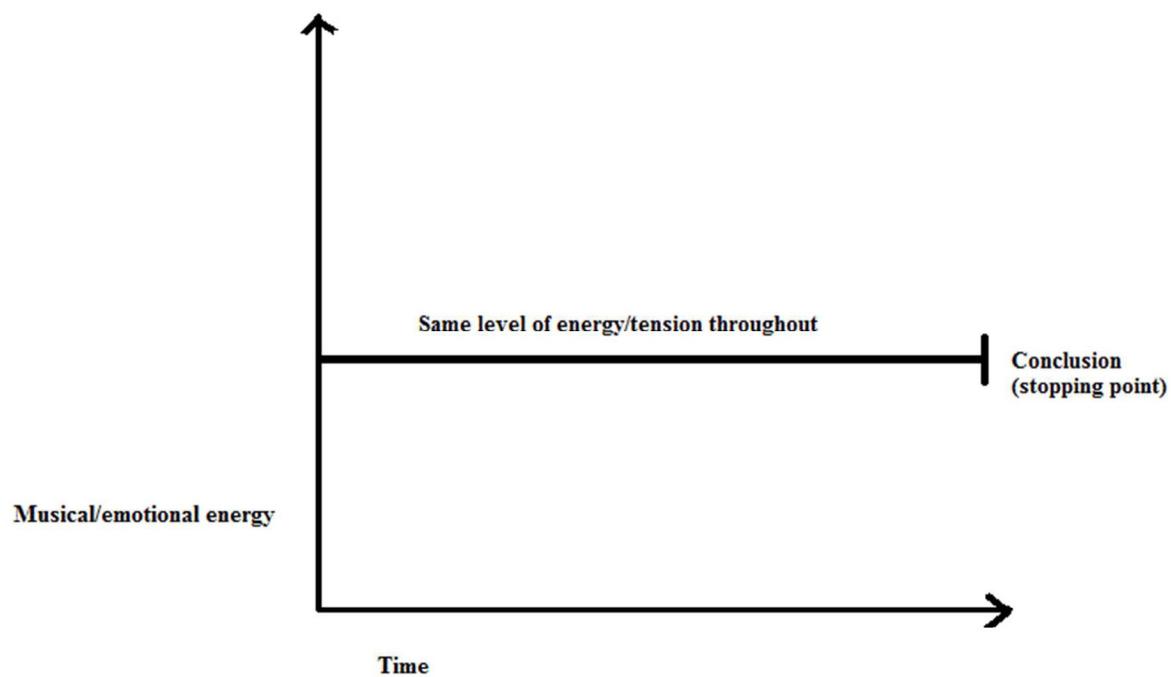
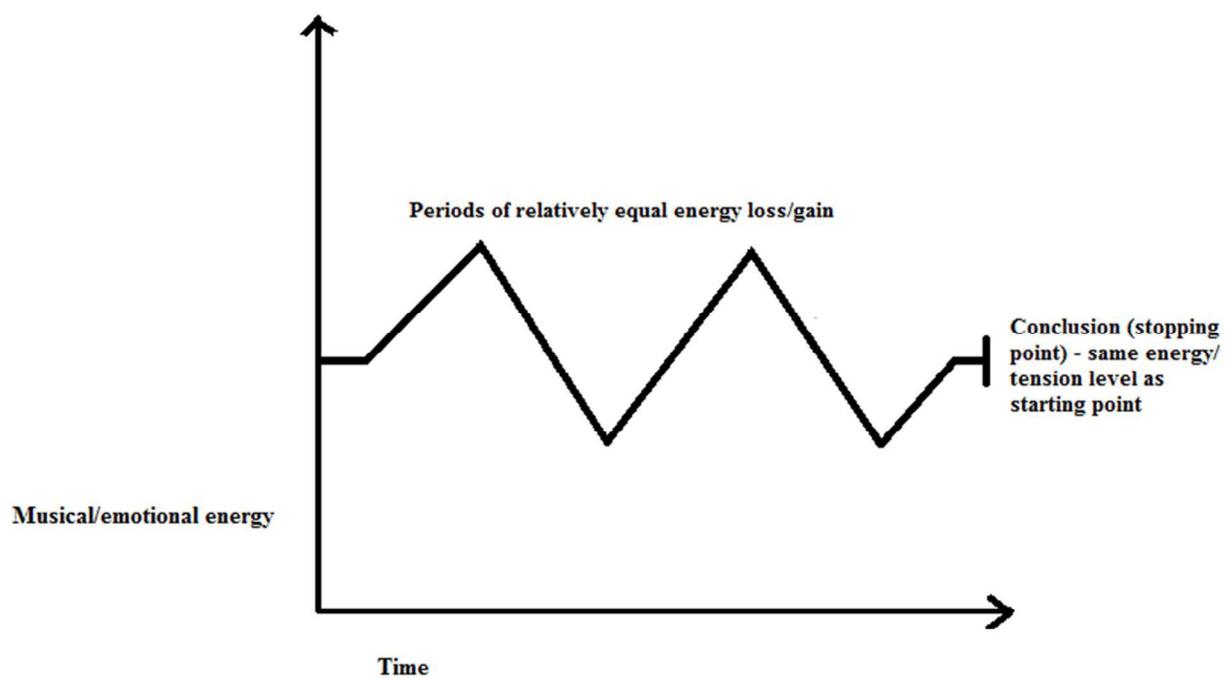
A few examples of the innumerable Western classical composers who readily come to mind who were particularly masterful at manipulating musical tension and release (both by following and ignoring the standard climax-driven paradigm) include Johann Sebastian Bach, Ludwig van Beethoven, Richard Wagner, Anton Bruckner, Sergei Rachmaninoff, Gustav Mahler, Richard Strauss, and Gyorgy Ligeti. Hindustani music also offers many examples of very patient and masterful manipulation of musical energy/tension. Examples of a few of the countless jazz musicians who are particularly masterful at manipulating musical tension and climaxes include Louis Armstrong, Miles Davis, John Coltrane, Wayne Shorter, Brian Blade, Dan Weiss, and David Binney. Some styles of music which often do not adhere to the standard climax-based structural model include electronic music and many non-Western styles such as Arabic *maqam* music and gamelan music. Here are a few visual diagrams to assist you as you begin to conceptualize different ways you can organize the overall emotional trajectory of your music:









Model of Constant/Unchanging Musical Energy/Tension**Net Neutral Model of Musical Energy/Tension**

Brief Introduction to Standard Forms

Although it is beyond the scope of this book to go into serious detail about any standard jazz, classical, or other stylistic forms, it is appropriate and valuable to mention and briefly describe a few standard formal models in the most general terms in order to provide you with some basic, foundational ideas about the different ways musicians have organized their music in the past. Hopefully this will inspire you as you continue to develop your own approach to musical form (for more detailed information about music forms, please see the resources I list in the recommended reading section at the end of this book).

It is important to note that standardized forms often feature **cadences** in order to clearly define complete musical thoughts (i.e. sub-sections within a continuous piece of music). In the most general sense, a cadence is a musical phrase which uses clearly stated melodic, harmonic, and/or rhythmic vocabulary to create a sense of (temporary or permanent) closure or resolution; usually cadences resolve musical tension created previously in the music. Cadences rely on the relativity of consonance and dissonance and you can develop your own vocabulary of cadential material in any way you want as long as your cadences create a clear sense of movement toward a logical musical/emotional conclusion.

Here is a list of some common standardized forms with very brief descriptions:

- **Classical forms:**
 - **Binary form**
 - “AB” – two part form with two contrasting sections usually closed off from one another by clearly delineated harmonic/melodic/rhythmic cadences.
 - **Ternary form**
 - “ABA” – three part form with two contrasting sections usually closed off from one another by clearly delineated harmonic/melodic/rhythmic cadences – the original section then returns at the conclusion of the second, contrasting section, usually in its entirety and with very few, if any, modifications/alterations/variations.
 - **Sonata form**
 - A special kind of ternary form in which the A (or first) section is called the **exposition**, the B (or second) section is called the **development**, and the return of the A section at the end is called the **recapitulation**. The exposition states a few clear, contrasting, and important musical themes then transitions and modulates (changes keys) to create a musically unstable situation before launching the development; the development initiates itself from the instability at the end of the exposition and uses counterpoint, modulation, fragmentation, etc. to develop the themes first revealed in the exposition (the development usually drives toward a climactic point of tension and instability); after a “re-transition” at the end of the development section, the recapitulation restates the material from the exposition, but slightly altered to erase the instability created in

the original statement of the exposition, thus creating a sense of closure, roundedness, unity, and resolution.

- **Rondo form**
 - Alternating contrasting sections interrupted by a consistent and constantly repeated section, called a “refrain;” (e.g. ABACA or ABACABA or ABACADA etc.).
- **Theme and variations**
 - A form which takes a complete, self-contained statement of a musical theme, usually closed off with cadential material, then repeats the entire theme over and over again with varying degrees of musical alteration (without destroying the fundamental connection between the varied material and the original theme).
- **Fugue**
 - A highly controlled contrapuntal compositional strategy in which a short melodic theme or motive (called the fugue “subject”) is stated by itself and then layered on top of itself and on top of various contrasting/ complementing countermelodies.
- **Jazz forms**
 - **Blues form**
 - Usually 12 measures long, in ABA or ABA’ (where A’ designates a variation of the original A) form; blues forms appear with a wide variety of harmonic modifications (see Section 5 of the Melodic and Harmonic Supplement Section above for examples of blues harmonic progressions).
 - **AABA popular song form**
 - Widely known as a common form for jazz standards, usually 32 measures with each sub-section lasting 8 measures; particularly common among the body of standard 20th century jazz/swing/popular/Broadway repertoire sometimes known as the “Great American Songbook.”
 - **“Rhythm changes” form**
 - 32-bar AABA form based on the harmonic structure of George Gershwin’s famous popular composition “I Got Rhythm;” appears with a wide variety of harmonic modifications (see Section 5 of the Melodic and Harmonic Supplement Section above for examples of various rhythm changes harmonic progressions).
 - **Some general structural devices used often in jazz:**
 - Head-solos-head format (where the head is the statement of the main theme/melody/basic composition).
 - Sections of improvised solos based on the harmonic structure of the main head/theme/melody, often with references to the main melody.
 - “Call and response” between ensemble members where musicians play one after another repeating, varying, and musically commenting on what the others are playing (e.g. trading improvised four/eight measure phrases with the drummer).
- **Dance forms**

- Some classical dance forms which often have standard meters, moods, and characteristic vocabulary and musical gestures:
 - Waltz
 - Minuet
 - Bolero
 - Pavane
 - Mazurka
 - Polonaise
 - Baroque dances: *courante, gigue, sarabande, bourree, gavotte, chaconne, allemande, saltarello, etc.*
- Some jazz/popular dance forms which often have standard meters, moods, and characteristic vocabulary and musical gestures include: polka, boogie-woogie, the Charleston, fox-trot, ballad, etc.
- Stylized dances: pieces of music in the style of a dance but meant to be listened to, not necessarily danced to (particularly common in classical music).

Summary of Formal and Structural Considerations

In conclusion, there is a lot to consider when approaching the question of how to structure your music. To maximize your effectiveness when composing or improvising, it is helpful to remind yourself of all of the numerous different elements of music at your disposal. You should also take some time to consider all of diverse ways you can approach each and every specific element of music in order to develop your own personalized, individualistic, and unique approach to music making. Here is a basic list or inventory of musical elements and questions to consider while inventing and structuring your improvisations and compositions:

- **Timbre/tone/quality of sound**
 - What type of **timbre** or **tone** or **sound** do you want to generate on your instrument?
 - What do you want the overall timbre of this composition, improvisation, ensemble, or other musical project to sound like?
 - Do you want to maintain a similar timbre throughout this composition, improvisation, ensemble, or other musical project, or do you want variety/contrast?
 - How will you use **articulation, vibrato**, and other special **sonic effects**?
 - How will you use the various contrasting pitch registers (low, middle, high, etc.) of your instrument and/or ensemble?
 - How will you treat **instrumentation** (i.e. who is playing what and when) when dealing with an ensemble? Will you swap around the typical expected instrumental roles and/or instrumental format?
- **Time/rhythm**
 - Do you want to communicate a clear **meter**? Will it change? Do you want a triple or duple or odd meter? Compound or simple?

- What will your **tempo** be? Will it change? If so, will it change suddenly, or gradually, or both?
- Will you use/incorporate **polyrhythms** and/or **syncopation**?
- Will you use **claves**, **ostinatos**, or any other types of repetitive rhythmic figures?
- Will you play time with a feeling of relentless forward-driving motion (i.e. do they borderline rush the tempo and play “**on top of the beat**”)? Or will you play in a languid, relaxed, laid-back, and mellow fashion (i.e. “**behind the beat**”)? Or with near metronomic precision and a steady accurate pulse (i.e. “**on the center of the beat**”)?
- Will you use a **swing** or a **straight-eighth note feel**?
- Will you use fast and **complex rhythms** or slower, **simpler rhythms** (or a specific combination of both)?
- Will you use double- and/or triple-time rhythms? Or even quadruple-time rhythms?
- Will you play rhythms **in time**? Or “**out of time**” (intentionally)? Or both?
- How will you balance your use of **space** (i.e. silence or rests) with your use of rhythm?
- How **repetitive** or insistent will your rhythms be, and how **much rhythmic variety** will you use?
- Will you use rhythm freely in an improvisatory manner, or will you regiment and control your rhythms and time?
- Will you use a clear strategy or technique to develop your rhythmic content in a specific way (e.g. serialized rhythm)?
- **Melody and Harmony**
 - Will your music have a clear melody? Clear harmonies? Both? Neither?
 - Will you use simple, singable, plain **melodies**? Or more complex, intricate, difficult melodies? Or a specific mix of both?
 - Will the music clearly be in one **key**? **Major**? **Minor**? **Modal**? **Atonal**? **Polytonal**? Will your music **modulate** (i.e. change keys during the music)?
 - Will your music favor **consonance** or **dissonance**, or both? How will you balance the two concepts and use tension and release in your music?
 - Will you use common or **standard chords/voicings** and **progressions**, or invent/create/assemble your own? Will you use **cadences** (i.e. V-I motion) or **turnarounds** (i.e. I-vi-ii-V7-I’s and similar progressions)?
 - Will your harmony change/move quickly or slowly?
 - Will your harmonies be static or very dynamic and varied?
 - Will you favor open, simple, **clear harmonies**, or dense, complicated, **colorful harmonies** (or a specific mixture of both)?
 - Will you use **counterpoint** or **polyphony** (i.e. multiple independent melodies layered on top of each other) or **homophony** (i.e. one focal melody with lesser important supporting melodies and chords/harmonies moving approximately rhythmically together as a unit)? Or **monophony** (i.e. one unaccompanied melody)? Or **heterophony** (i.e. multiple versions of the same melody playing simultaneously)?

- How will you group your **melodic phrases**? Will you use **sequences**? Will you play parallel phrases? Will your melodies have a sense of climax to them?
- Will melodies be repetitive or widely varied/contrasted?
- Will you strive for a dense/complicated harmonic/melodic texture, or will you try to create a light/clear/simple/light musical texture? Or will you create a specific mix where you contrast both?
- Will you write a contrafact (i.e. a new melody using an already existing harmonic progression, such as composing a new melody over the blues form or rhythm changes form)?
- Will you take a pre-existing melody and re-harmonize it (i.e. change the harmonic structure without drastically changing the melodic content)?
- **Dynamics**
 - How will you use dynamics? Will you use a lot of contrast or a lot of consistency?
 - Will you use generally loud or soft (or both) dynamics?
 - Will you use *crescendos* and *decrescendos*?
 - Will you change dynamics suddenly or gradually, or a mix of both?
- **Form**
 - Will you use or reference a standard/common/stock musical form? If so will it be:
 - Binary form
 - Ternary form
 - Sonata form
 - Rondo form
 - Theme and variations
 - Fugue
 - “Blues” form
 - “Rhythm changes” form
 - A dance form?
 - Classical dance form or jazz/popular dance form
 - Will it be a stylized dance form, or a true dance form?
 - Any other form?
 - Will you use thematic/motivic development?
 - Will you use an organizing device, technique, and/or principle such as the 12-tone system?
 - What will the overall emotional trajectory of your composition or solo be?
 - Will you make the form abundantly clear or intentionally more obscure?
 - Will you use vamps, *ostinatos*, or any other type of repetitive element to influence the form of your music?



University of Utah Jazz Studies Program Song List and Guidelines for Tune Memorization for Jazz Studies Juries

Rationale:

Since its inception, jazz has been primarily dominated by *improvisation* in the context of small ensembles or combos. Students' musicianship skills may be greatly enhanced by participating in a small jazz ensemble, since jazz combo playing requires sharp ears, impeccable balance and intonation, expressivity, stylistic sensitivity, improvisational skills, and a strong command of rhythm, time-feel, and swing. Jazz combos provide students with an intimate musical laboratory in which they can develop their jazz improvisation and general musicianship skills. In jazz combos, musicians improvise over individual songs selected from a broad repertory of standard tunes *from memory*. It is imperative that all jazz musicians memorize dozens (if not hundreds) of popular standards to succeed in their careers as performers, composers, and teachers. The typical professional jazz musician can perform at least 50–500 standards from memory, often transposing songs on the spot. Jazz is very much like a language and memorizing the melodies and chord changes to popular tunes is an essential part of learning the vocabulary of jazz. Additionally, many jazz studies students will become ensemble directors in charge of jazz combos upon graduating. Therefore, it is vital that students gain practical experience in knowing and selecting repertoire for a small jazz ensemble so that they are equipped to teach in this format after completing their degrees.

Definitions of Key Terms:

“Standards”

- In the broadest sense, the word “standards” refers to all the songs, tunes, and compositions that jazz musicians often are expected to perform and improvise over (from memory, without the aid of sheet music or chord sheets). Standards are broken down into two broad categories: Great American Songbook standards and “jazz” standards (although some people use these terms interchangeably). The terms compositions, heads, melodies, songs, tunes, pieces, and numbers can all be used when referring to standards (though the “head” and “melody” usually refer only to the main melodic theme of the song).
- **“Great American Songbook Standards”**
 - The Great American Songbook refers to a loosely defined canon or repertory of songs that jazz musicians often interpret and improvise over. The Great American Songbook includes standards by composers such as

George Gershwin, Cole Porter, Irving Berlin, Jerome Kern, Harold Arlen, Johnny Mercer, and Richard Rodgers. Great American Songbook songs:

- Often originally come from Broadway musicals, Tin Pan Alley, and/or Hollywood films (Tin Pan Alley refers to the hub of popular music songwriting that was the music publishers' row on New York's West 28th Street in the first half of the 1900s)
 - Usually were composed between 1920–1960
 - Almost always have lyrics in their original version
 - Are likely to be based entirely on tonal vocabulary (such as II-V-I's)
- **“Jazz Standards”**
 - Although people sometimes lump together jazz standards and Great American Songbook standards (or they include jazz standards in their definition of Great American Songbook Standards), the term “jazz standards” is also often used to differentiate between Great American Songbook tunes and standards that originated from *jazz musicians themselves*. Jazz standards therefore were *written by jazz musicians for themselves or for other jazz musicians to perform and improviser over*. Composers of popular jazz standards include Jelly Roll Morton, Duke Ellington, Charlie Parker, Dizzy Gillespie, Thelonious Monk, Miles Davis, John Coltrane, Wayne Shorter, Joe Henderson, Herbie Hancock, Sonny Rollins, Bill Evans, Horace Silver, Benny Golson, etc.
 - Jazz standards:
 - Primarily were composed between 1930–1970
 - Rarely contain lyrics in their original versions (i.e., they are instrumental compositions, though sometimes lyrics have been added later)
 - Are more likely to include modal harmonic vocabulary as well as tonal vocabulary (such as II-V-I's)

“Blues”

- Blues refers to both a musical style or genre and a type of composition or common musical form.
- Blues tunes are usually 12 bars in an AA'B format (though 16-bar blues forms also exist).
- A “blues blues” or a simple blues or traditional blues (common in blues and rock-n-roll music) usually only uses I7, IV7, and V7 chords.
- A “jazz blues” is much more complex and includes II-V-I's. Common examples of the jazz blues form include Parker's “Au Privave” and Sonny Rollins's “Tenor Madness.”
- A “Bird blues” is a blues form that has been reharmonized and is based on a common form popularized by Charlie Parker (examples include “Chi-Chi” and “Blues for Alice”).
- A minor blues is a blues in the minor mode (such as John Coltrane's “Mr. PC”).
- A modal blues is a blues that is treated in a modal style (such as Miles Davis's “Freddie Freeloader”).

- Some blues songs use I7 and IV7 chords but substitute a bVI7 or a bV7 instead of a V7 chord in bar 9 of the form (examples include Coltrane's "Equinox" and "Cousin Mary").

"Reharmonization"

- A reharmonization is when a composer or performer retains the same melody for a song but changes all or part of the chord progression for the tune (also called a "reharm."). Reharmonizations can be improvised on the spot (often only done for one chorus) or can be predetermined beforehand and done consistently for every chorus of a tune.

"Contrafact"

- A contrafact is a song in which a new melody has been composed over a preexisting set of chord changes. For example, the bebop standard "Donna Lee" is based on the chord changes to "(Back Home Again in) Indiana," so "Donna Lee" is a contrafact over "Indiana."

"Rhythm Changes"

- Any contrafact composed over the chord progression to George Gershwin's famous standard "I Got Rhythm," which features several jazz turnarounds.

"Ballad"

- Any standard that is meant to be played at a slow tempo. Ballads often have romantic-themed lyrics and/or titles.

"Latin Jazz Standard"

- Any standard in a "Latin jazz" style, which is an umbrella term for Cuban, Brazilian, Caribbean, and other styles of Afro-Latin jazz. Examples include the styles of bossa nova, samba, rhumba, mambo, bolero, etc. Latin jazz almost always has a straight-8th note feel.

"Modulation" vs. "Transposition"

- To "modulate" means to change keys in the middle of a song. Many standards already include modulations in the original versions of their harmonic progressions. However, sometimes jazz musicians will add additional modulations in the middle of the form for a standard (a classic example is Bill Evans's version of "The Days of Wine and Roses," which he starts in the traditional key of F major but modulates to the key of Ab major halfway through the form). Transposing a song by contrast means to take the entire song into a new key from the very beginning (not to change keys after the song has started). Often, standards need to be transposed to accommodate vocalists' ranges.

Tune Memorization:

To truly "know" a jazz tune means:

1. You have *memorized* the melody and can play it *in time* on your instrument (although playing the melody under tempo is acceptable for certain circumstances, especially for bassists playing bebop heads, for example).
2. You have *memorized* the chord changes and can play the chord progression to the song on piano or guitar AND/OR walk bass lines and arpeggiate the chords on your instrument.
3. You can *notate* the song on the spot by writing out the melody and the chord changes as chord symbols in lead sheet format.
4. You can *talk* through the song chord by chord or phrase by phrase in concert pitch, in your instrument's key, and/or using roman numerals.
5. You can transpose the song (play the song in a few other keys) on the spot (at least at a slower tempo, phrase by phrase).

To learn a standard, follow these steps (NOTE: do NOT consult a lead sheet or chord sheet until step 4 or later, when it's time to "check your work," unless you *really* get stuck):

1. *Find a high-quality recording of the song by a famous jazz performer.* If you're unsure of which performers you should consider, ask Dr. Boornazian or your applied instructor, or perform an internet search for "famous jazz _____ (fill in your instrument)" to help give you ideas. It often helps to learn Great American Songbook standards from singers (such as Ella Fitzgerald or Frank Sinatra for example), because vocalists often sing relatively straightforward versions of the head, and hearing the lyrics along with the melody can often best help you remember all of the notes of the melody with the correct rhythm.
2. *Listen to the recording with focused attention 5–10 times in a row.* Focus on trying to get the melody stuck in your head. Also pay attention to what the chord changes sound like and what the form and phrase structures are like. Is it a 12-bar blues, or a 32-bar AABA song, for example?
3. *Sing along with the melody several times.* Don't worry if you can't sing it perfectly in tune. Just do the best you can to match the melodic contour and the rhythm of the version you're studying.
4. *Play the melody along with the recording by ear.* If you can't figure it out phrase by phrase, break down each phrase into smaller chunks. Use the pause and rewind feature of your audio playback device often (you can also use an app or a digital audio workstation to slow down the recording or loop parts of it if you find this helpful). You can even take it note-by-note if needed. Use your ears and your instrument to help you figure out the notes in the melody by trial and error. If you don't get the right note on your first 1–3 attempts, then pick one note to focus on and go up or down in half steps methodically until you find the right note. Only consult a lead sheet to check your work after you've learned the entire melody OR if you really get stuck and can't hear a note or phrase properly. However, be aware that lead sheets are not always accurate, especially given that many jazz musicians have their own unique interpretations of many standard melodies, so there might be several "correct" variations.

5. *After you learn the melody, repeat it at least 5–10 times while playing along with the recording, and then 5–10 time unaccompanied (use a metronome if this will help you keep time).*
6. *Learn the roots of the chords for the song's harmonic progression by ear.* Follow the same process you used to learn the melody by ear but this time pay attention to which notes the bass player is playing on beats 1 and 3. Again, use the pause and rewind feature of your audio playback device often. You can even take it one measure or half measure at a time if needed. Use your ears and your instrument to help you figure out the notes the bassist plays on beats 1 and 3 by trial and error. If you don't get the right note on your first 1–3 attempts, then pick one note to focus on and go up or down in half steps methodically until you find the right note. Only consult a lead sheet to check your work after you've learned the entire root structure for the form OR if you really get stuck and can't hear a note properly. However, be aware that lead sheets are not always accurate, especially given that many jazz musicians have their own unique interpretations of many standards' chord progressions, so there might be several "correct" variations.
7. *Learn as much of the song's chord progression as possible by ear.* You can also use your knowledge of jazz theory to assist you during this process. Once you know the roots of the chords (step 6), you can make some educated guesses about the harmony of a standard. For example, if you determined the bass notes of a phrase to be C–A–D–G–C, you can guess with a high level of confidence that the chord progression for that part of the song is some type of I–VI–II–V–I in the key of C. To figure out the harmony of a song, listen to the song one chord at a time, pick a note that sounds like it fits with the chord, and then play up or down a scale (in half and whole steps) that sounds like it fits with the chord you're hearing. Move extremely slowly through the scale so you can really try to hear if the notes you're hitting sound like they match with or clash with the chord from the recording. Take it 1–3 notes at a time and correct yourself as you let your ears guide you. Again, use the pause and rewind feature of your audio playback device often. You can even take it one measure or half measure at a time if needed. Only consult a lead sheet to check your work after you've learned the entire chord progression for the form or a for a phrase OR if you really get stuck and can't hear a chord properly. However, be aware that lead sheets are not always accurate, especially given that many jazz musicians have their own unique interpretations of many standards' chord progressions, so there might be several "correct" variations.
8. *After you learn the song's chord progression, repeat it at least 5–10 times (as chords if you play a chordal instrument or as arpeggios if you play a single-note instrument) while playing along with the recording, and then 5–10 time unaccompanied (use a metronome if this will help you keep time).*
9. *Play through the scales/modes that go with each chord.* You can start by doing this out of time, extremely slowly, but eventually try to do it in time along with the recording and/or with a metronome. Start by playing up the scales in 8th

notes or 16th notes from the root, then try playing down the scales in 8ths or 16ths from the 9th/2nd of the scale.

10. *Play through the guidetones (3rds and 7ths, resolving from the 7th to the 3rd without melodically leaping when possible) for the song 5–10 times. Break it into smaller chunks at first if needed.*
11. *Improvise over the tune for at least 5–10 choruses, focusing on keeping track of where you are in the form and playing with good voiceleading.*
12. *Write down and/or talk your way through the tune aloud both in your instrument's key or in concert pitch AND in roman numerals. Thinking through tunes in roman numerals greatly speeds up the processes of internalizing common chord progressions, learning tunes in general, and transposing tunes into different keys.*
13. *Revisit the song at least once more within 1–3 days of first learning it. Play through the melody and the chord changes at least once each and then improvise over several choruses to refamiliarize yourself with the tune.*
14. *Add it to your list of tunes you know and set a reminder in your calendar to revisit the song at least once every 4–6 weeks to retain it in your long-term memory.*

Tune Memorization Requirements by Level and Major/Minor:

Jazz Minors and Jazz Composition Majors

- 3–5 tunes per semester minimum, no more than 2 songs per semester can be a blues or rhythm changes

Jazz Performance Majors (Undergraduate)

- 5–8 tunes per semester minimum, no more than 2 songs per semester can be a blues or rhythm changes

Jazz Performance Majors (Graduate)

- 7–10 tunes per semester minimum, no more than 2 songs per semester can be a blues or rhythm changes; at least 2 songs must be advanced jazz standards

List of Tunes to Select From By Type

GREAT AMERICAN SONGBOOK STANDARDS: MEDIUM/UPTEMPO

<ul style="list-style-type: none">• A CHILD IS BORN• A FOGGY DAY• AFTER YOU'VE GONE• ALICE IN WONDERLAND• ALL OF ME• ALL OF YOU• ALL THE THINGS YOU ARE• ALONE TOGETHER	<ul style="list-style-type: none">• COTTONTAIL• DARN THAT DREAM• DAY BY DAY• DAYS OF WINE AND ROSES• DO NOTHING TIL YOU HEAR FROM ME• DON'T GET AROUND MUCH ANYMORE
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- AUTUMN LEAVES
- BEAUTIFUL LOVE
- BERNIE'S TUNE
- BLUESETTE
- BUT NOT FOR ME
- BYE BYE BLACKBIRD
- CARAVAN
- CHEROKEE
- COME RAIN OR COME SHINE
- I COULD WRITE A BOOK
- IF I SHOULD LOSE YOU
- IF I WERE A BELL
- I HEAR A RHAPSODY
- I LOVE YOU
- I REMEMBER YOU
- I SHOULD CARE
- I THOUGHT ABOUT YOU
- I'LL REMEMBER APRIL
- I'M GETTING SENTIMENTAL OVER YOU
- IN A MELLOW TONE
- IN YOUR OWN SWEET WAY
- INVITATION
- IT COULD HAPPEN TO YOU
- IT DON'T MEAN A THING
- IT MIGHT AS WELL BE SPRING
- IT'S YOU OR NO ONE
- I'VE GOT THE WORLD ON A STRING
- JUST FRIENDS
- JUST IN TIME
- JUST ONE OF THOSE THINGS
- LIKE SOMEONE IN LOVE
- LONG AGO AND FAR AWAY
- LOVE FOR SALE
- LOVER
- LULLABYE OF BIRDLAND
- MY FAVORITE THINGS
- MY FOOLISH HEART
- MY FUNNY VALENTINE
- MY ONE AND ONLY LOVE
- MY ROMANCE
- MY SHINING HOUR
- NEARNESS OF YOU, THE

- EAST OF THE SUN
- EASY TO LOVE
- EMBRACEABLE YOU
- EMILY
- FALLING IN LOVE WITH LOVE
- FROM THIS MOMENT ON
- HAVE YOU MET MISS JONES
- HOW DEEP IS THE OCEAN
- I CONCENTRATE ON YOU
- OUT OF NOWHERE
- OVER THE RAINBOW
- SECRET LOVE
- SOFTLY, AS IN A MORNING SUNRISE
- SOMEDAY MY PRINCE WILL COME
- SONG IS YOU, THE
- SPEAK LOW
- STARDUST
- STAR EYES
- STELLA BY STARLIGHT
- SUGAR
- SUMMERTIME
- TAKE FIVE
- TAKE THE "A" TRAIN
- THE TOUCH OF YOUR LIPS
- THERE IS NO GREATER LOVE
- THERE WILL NEVER BE ANOTHER YOU
- WALKIN'
- WAY YOU LOOK TONIGHT, THE
- WHAT IS THIS THING CALLED LOVE
- WITHOUT A SONG
- YESTERDAYS
- YOU & THE NIGHT & THE MUSIC
- YOU STEPPED OUT OF A DREAM

<ul style="list-style-type: none"> • NIGHT AND DAY • NIGHT HAS 1000 EYES • OH LADY BE GOOD • OLD DEVIL MOON • ON GREEN DOLPHIN STREET • OUR LOVE IS HERE TO STAY 	
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GREAT AMERICAN SONGBOOK STANDARDS: BALLADS

- BODY & SOUL
- DARN THAT DREAM
- DON'T BLAME ME
- EASY LIVING
- GOD BLESS THE CHILD
- HERE'S THAT RAINY DAY
- I CAN'T GET STARTED
- IN A SENTIMENTAL MOOD
- IT NEVER ENTERED MY MIND
- LOVER MAN
- MISTY
- MOOD INDIGO
- MY FOOLISH HEART
- MY FUNNY VALENTINE
- MY OLD FLAME
- MY ONE AND ONLY LOVE
- MY SHIP
- NEARNESS OF YOU, THE
- OLD FOLKS
- PRELUDE TO A KISS
- SKYLARK
- SOPHISTICATED LADY
- YOU DON'T KNOW WHAT LOVE IS

JAZZ STANDARDS: BEBOP TUNES

- A NIGHT IN TUNISIA
- AIREGIN
- ANTHROPOLOGY
- CHERYL
- CONFIRMATION
- GOOD BAIT
- GROOVIN' HIGH

- HOT HOUSE
- HOW HIGH THE MOON/ORNITHOLOGY
- INDIANA/DONNA LEE
- LADYBIRD/HALF NELSON
- MOOSE THE MOOCHE
- MY LITTLE SUEDE SHOES
- OLD MILESTONES
- OLEO
- SCRAPPLE FROM THE APPLE
- SHAW NUFF
- SWEET GEORGIA BROWN/DIG
- YARDBIRD SUITE

JAZZ STANDARDS: MONK TUNES

- ASK ME NOW
- BEMSHA SWING
- EPISTROPHY
- I MEAN YOU
- IN WALKED BUD/BLUE SKIES
- MONK'S DREAM
- MONK'S MOOD
- OFF MINOR
- 'ROUND MIDNIGHT
- RUBY, MY DEAR
- PANNONICA
- WELL, YOU NEEDN'T

JAZZ STANDARDS: BLUES HEADS

- ALL BLUES – blues in 3/4 by Miles Davis
- AU PRIVAVE – bebop blues head by Charlie Parker
- BAG'S GROOVE – easy blues head in concert F
- BILLIE'S BOUNCE – bebop blues head by Charlie Parker
- BIRK'S WORKS– easy minor blues head
- BLUE MONK – classic Thelonious Monk blues
- BLUES FOR ALICE – a “bird blues” using alternate changes
- BLUES IN THE CLOSET – easy blues head
- C-JAM BLUES – easiest blues head of all time. Literally only two notes!
- CHERYL – blues head by Charlie Parker in concert C
- CHI CHI – another great “bird blues” head
- COOL BLUES – Simple blues head by Charlie Parker

- EQUINOX – John Coltrane minor blues head
- FOOTPRINTS – a variation of a minor blues
- FREDDIE FREELoader – blues head with a variation on the last chord
- FREIGHT TRANE – awesome “bird blues” from the Kenny Burrell and John Coltrane album
- MR. P.C. – entry level John Coltrane minor blues
- NOW’S THE TIME – Charlie Parker blues head with an iconic solo
- RELAXIN’ AT CAMARILLO – classic Charlie Parker blues head
- ROUTE 66 – singer blues tune
- SANDU – Clifford Brown blues head in concert Eb
- SONNYMOON FOR TWO – classic Sonny Rollins blues head
- STRAIGHT NO CHASER – simple Thelonious Monk blues head
- TAKE THE COLTRANE – blues by Duke Ellington for John Coltrane
- TENOR MADNESS – Sonny Rollins blues head and his only recording with Coltrane
- THINGS AIN’T WHAT THEY USED TO BE – entry level blues head
- WATERMELON MAN – Herbie Hancock variation on a blues
- WEST COAST BLUES – Wes Montgomery blues head in $\frac{3}{4}$

RHYTHM CHANGES HEADS

- ANTHROPOLOGY
 - A classic Charlie Parker head.
- DEXTERITY
 - Another great Charlie Parker tune. Parker’s heads are often times great studies on their own for learning how to improvise over chord changes.
- ETERNAL TRIANGLE, THE
 - This is a rhythm changes head written by saxophonist Sonny Stitt. You can hear it on Dizzy Gillespie’s 1957 record *Sonny Side Up*. This is a great one to learn because the bridge is re-harmonized and is worth looking in to.
- I GOT RHYTHM
 - This of course is the original rhythm changes by George Gershwin. It’s important to know where rhythm changes came from and be familiar with this tune. Keep in mind “I Got Rhythm” has a couple extra bars than the standard 32-bar rhythm changes form.
- LESTER LEAPS IN
 - This head was written by saxophone legend Lester Young for Count Basie’s Kansas City Seven. I suggest this one because it is incredibly easy and just a good catch phrase to know.
- MOOSE THE MOOCHE
 - Charlie Parker wrote a lot of great bebop heads over rhythm changes, and this is a good one.
- OLEO

- “Oleo” is arguably the most commonly called rhythm changes head and is incredibly important to know. This one was written by Sonny Rollins.
- RHYTHM-A-NING
 - This is a great rhythm changes head by Thelonious Monk. A lot of jazz musicians like to call this one, so it’s a good one to know.
- STEEPLECHASE
 - Parker again. This one only has a melody for the A sections and the B section is open for improvisation.

POPULAR MODAL JAZZ STANDARDS

- BEATRICE
- BLACK NARCISSUS
- BOLIVIA
- CANTALOUPE ISLAND
- CYCLIC EPISODE
- FEE-FI-FO-FUM
- FOOTPRINTS
- FREEDOM JAZZ DANCE
- INVITATION
- LITTLE SUNFLOWER
- MAIDEN VOYAGE
- MILESTONES
- RECORDAME
- SO WHAT/ IMPRESSIONS
- TAKE FIVE

POPULAR BOSSA NOVAS

- BLACK ORPHEUS
- CHEGA DE SAUDADE (NO MORE BLUES)
- CORCOVADO
- DESIFINADO
- GIRL FROM IPANEMA, THE
- HOW INSENSITIVE
- MEDITATION
- ONCE I LOVED
- ONE NOTE SAMBA
- THE LITTLE BOAT
- WATCH WHAT HAPPENS
- WAVE

ADVANCED/SPECIFIC DECADE JAZZ STANDARDS

JAZZ COMPOSITIONS – 1950's

ALONG CAME BETTY – *Benny Golson* – r. Art Blakey Moanin', 1958
CON ALMA – *Dizzy Gillespie*
COUNTDOWN – *John Coltrane* – r. Giant Steps, 1959
DIG – *Jackie McLean* r. with Miles 1951
DOXY – *Sonny Rollins* – r. Miles w. Sonny Rollins, 1955
FOUR – *Eddie Cleanhead Vinson* – r. Miles Davis Quartet, 1953
GIANT STEPS – *John Coltrane*, r. Giant Steps, 1959
JORDU – *Duke Jordan*
JOY SPRING – *Clifford Brown*- r. Clifford Brown and Max Roach 1955
LITTLE MELONAE – *Jackie McLean* r. Miles 1956
LOTUS BLOSSOM – *Kenny Dorham* r. Quiet Kenny 1959
MILESTONES – *Miles Davis* – r.
MOMENT'S NOTICE – *John Coltrane* – r. Blue Trane, 1957
NAIMA – *John Coltrane* – r. Giant Steps, 1959
NARDIS – *Miles Davis* - r. Potrait of Cannonball, 1985Bill Evans
NICA'S DREAM – *Horace Silver* r. The Jazz Messengers 1956
PEACE – *Horace Silver* – r. Blowin' The Blues Away, 1959
PENT-UP HOUSE – *Sonny Rollins* – r.
SANDU – *Clifford Brown* – Study in Brown, 1955
SOLAR – *Chuck Wayne/Miles Davis*
SO WHAT – *Miles Davis* – r. Kind of Blue, 1959
STABLEMATES – *Benny Golson* – r. Miles Davis, MILES, 1955
ST. THOMAS – *Sonny Rollins* – r. Saxophone Colossus, 1956
STROLLIN' – *Horace Silver* – r. Horace-Scope 1960
TUNE UP – *Miles Davis* – r. Cookin' 1956
THE PREACHER – *Horace Silver* - r. Horace Silver Quintet, 1955
WHISPER NOT – *Benny Golson* – r. Lee Morgan, 1956
WOODY 'N YOU – *Dizzy Gillespie* – r. Relaxin', Miles Davis 1956

JAZZ COMPOSITIONS – 1960's

BLUE BOSSA – *Kenny Dorham* – r. Page One, 1963
CANTALOUPE ISLAND – *Herbie Hancock* – r. Emphyrean Isles, 1964
COOKIN' at THE CONTINENTAL – *Horace Silver* – r. Finger Poppin', 1959
DANCE CADAVEROUS – *Wayne Shorter* – r. Speak No Evil, 1964
DOLPHIN DANCE – *Herbie Hancock* – r. Maiden Voyage, 1965
FEE-FI-FO-FUM – *Wayne Shorter* – r. Speak No Evil, 1964
JEANINE – *Cannonball Adderley* – r. Them Dirty Blues 1960

IMPRESSIONS – *John Coltrane* – r. Impressions, 1961
JOSHUA – *Victor Feldman* – r. Miles
JU-JU – *Wayne Shorter*, r. 1964
KILLER JOE – *Benny Golson* - r. Art Farmer Beny Golson Jazztet, 1960
MAIDEN VOYAGE – *Herbie Hancock* – r. Maiden Voyage, 1965
MERCY, MERCY, MERCY – *Joe Zawinul* – r. Cannonball Adderley
ONE FINGER SNAP – *Herbie Hancock* - r. Empyrean Isles, 1964
RECORDA ME – *Joe Henderson* – r. Page One, 1963
SEVEN STEPS TO HEAVEN – *Victor Feldman* – r. Miles 1963
SONG FOR MY FATHER – *Horace Silver* – r. 1964
SPEAK NO EVIL – *Wayne Shorter*, r. 1964
THE SIDEWINDER – *Lee Morgan* – r. 1963
TONES FOR JOAN’S BONES – *Chick Corea* -
UP JUMPED SPRING – *Freddie Hubbard*
WINDOWS – *Chick Corea* – r.
WITCH HUNT – *Wayne Shorter* – r. Speak No Evil, 1964
YES OR NO – *Wayne Shorter* – r. JU-JU, 1964

JAZZ COMPOSITIONS – 1970’s and CONTEMPORARY

BOLIVIA – *Cedar Walton* – r. Eastern Rebellion 1976
BRIGHT SIZE LIFE – *Pat Metheny*
FIRM ROOTS – *Cedar Walton*
500 MILES HIGH – *Chick Corea*
PHASE DANCE – *Pat Metheny*
QUESTION & ANSWER – *Pat Metheny*
RED CLAY – *Freddie Hubbard*
SAIL AWAY – *Tom Harrell*
SKY DIVE – *Freddie Hubbard* r. Sky Dive 1973
SPAIN – *Chick Corea*
VOYAGE – *Kenny Barron*